

Agribusiness & Applied Economics Report No. 500

September 2002

Cooperative Marketing in Specialty Grains and Identity Preserved Grain Markets

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Acknowledgments

Constructive comments were received from Drs. William Nganje, William Nelson, and Cheryl Wachenheim. Errors and omissions, however, remain the responsibility of the authors.

This project was funded through the Rural Business-Cooperative Service for the Research on Rural Cooperative Opportunities and Problems and titled *Evaluation of Alternative IP/Niche Management & Procurement Strategies for New Generation Co-ops*.

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ABSTRACT

Marketing of specialty and identity preserved grains has become an important strategy in the grain marketing industry and is being driven, in part, by consumer and processor demand and an interest in non-GM products. This study provides background and practices of numerous organizations involved in marketing of specialty/identity preserved grains. Supporting marketing activities are reviewed. Key factors in the success (or failure) of their efforts are identified. Major challenges facing the participants in the specialty/IP grain marketing industry are discussed. The primary focus is on the role of agricultural cooperatives and producer owned alliances.

Key Words: identity preservation, IP, segregation, traceability, specialty products, genetically modified, GM, non-GM, cooperative, alliance.

HIGHLIGHTS

There is a great deal of discussion and interest in the marketing of specialty and identity preserved grains. Many business entities, old line as well as newly established organizations, are attempting to capitalize on this interest in specialty/IP products.

Key factors identified in successful ventures include: effective market development, contracting to provide producers with some assurance of a market, information systems to support traceability/trackability at all levels of the supply chain, and the ability to work within an infrastructure system that is not designed to handle specialty/IP grains.

Not all efforts to capitalize on identity preserved grain marketing activities are successful. Some of the organizations in the industry have ceased operations or significantly changed their emphasis. The main factor in the firms' failing to realize their goals is their inability to develop markets with premiums sufficient to offset the increased costs of handling specialty/IP grain.

Major challenges and issues in successful marketing of specialty/IP grain include: the ability to realize premiums sufficient to cover increased costs, fair and effective distribution of benefits throughout the supply chain, food safety and traceability, managing risks of climatic induced quality losses, and operating within a grain handling infrastructure that is not designed to accommodate segregation and traceability.

The primary advantage that cooperatives and/or producer alliances have in marketing specialty/IP grain is more direct access and influence over their members and producers.

Cooperative Marketing in Specialty Grains and Identity Preserved Grain Markets

Edward L. Janzen and William W. Wilson*

1. INTRODUCTION

Grains have traditionally been marketed as bulk commodities because of the cost advantage associated with economies of scale. Segregating products requires special handling and other functions that increase costs. In recent years, there has been an increase in the production of specialty crops for niche markets due to end-users becoming more specific about crop quality. Many of these specialty grains need to retain their identities in order to capture potential economic benefits. Identity preservation is a challenge for the current logistical structure of the grain handling system as the United States grain marketing system has not traditionally been well adapted for segregation or identity preservation.

Identity preservation (IP) according to Dan Dye of Cargill is a “traceable chain” of custody that begins with the grower’s choice of seed and continues through the shipping and handling system (Dye). In an identity preservation system, the grains are kept separate and not commingled with other similar products. Identity preservation requires separate or thoroughly cleaned storage and transportation equipment, which increases logistical expenses. In response to these changes, many new generation cooperatives (NGCs) and other firms and organizations have emerged to service these niche or IP markets. Also, traditional cooperatives have been developing business units to pursue strategies of increased segregation and marketing by end-use characteristics for several years (Ebbert).

The purpose of this study is to document and describe management and procurement strategies adapted by selected marketing firms and organizations, including some new generation cooperatives. Firms/marketing agencies/cooperatives were surveyed with specific examples identified that focus on successes and/or failures of marketing agencies. Results from the survey provide insights into strategies that aid in the development of successful new generation cooperatives.

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2. BACKGROUND

Segregation and identity preservation are slightly different approaches to a marketing function. Segregation involves testing and keeping lots with different characteristics separate but commingled with other grains that are similar, based on the test results. Identity preservation requires segregation, but also requires retaining the identity of the product from the farm origin to point of first processing. It also requires more extensive documentation and in some cases third-party verification. The trend towards differentiation and specialization in the marketplace requires segregation or identity preservation to preserve the value that is added by various quality categories.

Farmers and elevators represent the first stage of segregation. The farm level is ideal for segregation due to relatively small storage facilities. Segregation at the farm level may provide premiums for the producer. Many country elevators are not well suited for segregation because they have developed into bulk facilities designed for high volume throughput and not for smaller lots of specialized products. In addition, incentives for high volume shipping have greatly influenced the structure of the grain handling industry.

Several surveys have sought to determine the percentage of elevators that are segregating commodities based on genetically enhanced traits. A survey by the American Corn Growers Association shows that 91.4% of grain elevators in the United States were not segregating GMO corn (Smith). Sparks companies indicated that 8% of Midwestern grain elevators segregated soybeans and 11% segregated corn (Steyer). A survey conducted in the spring of 2000 found that 25% of elevators planned on segregating GM from conventional corn, while 20% said they would segregate GM and conventional soybeans (Roseboro). Roseboro indicated that in 1999, a *Grain Journal* survey showed that only 9% of elevators segregated non-GM and GM grains. Many elevators that accept biotech varieties do not export their grain to other countries, where most of the concern over GM commodities is found. Delivering products that have been segregated and identity preserved through the market channel requires more communication among firms than has existed in the past (Grinder).

Identity preservation systems are higher cost than the generic commodity handling systems. The increased expenses are attributed to the stricter specifications that exist in this type of system and extra labor and capital needed to clean equipment and build new structures for product preservation. The tolerance level of genetic content is a major concern for industry participants operating identity preserved systems. If a low tolerance level is set, identity preservation costs increase due the increased risk of being out of conformance.

Dahl and Wilson examined the costs associated with marketing wheat on an identity preserved basis. A survey used by the authors found that wheat is being segregated on the basis of grade, protein, and location. One survey respondent noted that the cost of identity preservation may range from 25 cents to 50 cents per bushel. The authors also found that an increase in market segmentation among importers of United States hard wheat is occurring.

IP systems have become important for marketing non-GM grains in markets where GM grains have been adopted, as a method aimed at reducing contamination to ensure purity of a

product.² This is very difficult due to the many possible contamination points in grain production and throughout the marketing system. Wayne Beck of Pioneer indicated that no one can guarantee 100% non-genetically modified grain (Horstmeier and Klintberg). Identity preservation and certification programs increase logistical costs but also reduce the risk of not meeting quality conformance to strict specifications. Testing and inspection methods are being further developed to ensure that quality specifications are being attained in the market place. Producers and grain handlers are required to exercise greater care and control to enable the delivery of supplies with high purity when they are needed (Anderson). Wilcke emphasizes that detailed records of planting date, field location and size, seed identity, inputs used, harvest date, crop yield, storage bin number, crop delivery date, vehicles used, and the name of the person delivering the crop need to be recorded. In addition, samples of the crop should be kept until the buyer is satisfied with the quality of the delivered commodity.

A major conclusion of the study is that increased specificity in strategies has the most impact on the change in shipper costs. The higher economic value associated with increased specificity is to some extent eroded by the higher costs associated with segregation. Brester et al. examine the costs associated with identity preservation in wheat. A main focus of their research was the principal agent problem. This means that buyers are unable to know immediately if the product delivered conforms to their specified needs. Tests and samples must be conducted to ensure that the product meets their quality requirements. If the product does not conform, it is sold on a scrap market at a lower price. Management costs are considered important due to the complexity that identity preservation presents to administration.

The USDA Economic Research Service (ERS) estimates the cost of segregation for the grain pipeline at 22 to 54 cents per bushel (Lin, Chambers, and Harwood). Segregation costs included in the ERS study were additional costs of storage, handling, risk management, analysis/testing, and marketing.

Many new business units/organizations are being formed or expanded to help serve the growing customer demand for IP marketing solutions. A general description of the types of business units involved in this emerging market is presented. A discussion of their IP/niche marketing strategies follows. There are several categories of activities involved in IP marketing. These include (and are not limited to) contracting with farmers/sellers, market facilitators, information exchange, information tracking, and the use of e-commerce to facilitate marketing of IP grains. Most of the firms' activities in IP marketing include one or more of these functions.

Ultimately, IP marketing involves a change in the buyer's procurement strategy. To provide some scope for this, IP can be viewed as a form of vertical control (Figure 1.). Features of IP include use of contracts and testing, traceability requirements, and varying forms of vertical integration. At the opposite extreme is reliance upon open market mechanisms.

² With the emergence of GM grains, major grain handlers urged handlers and producers to segregate. Archer Daniels Midland announced first that they preferred segregation of commodities due to trends they were experiencing in consumer demand. Archer Daniels Midland and others advised grain suppliers to segregate all conventional and genetically enhanced grain to take advantage of niche market and potential emergent premium pricing opportunities.

Approximate costs incurred along the spectrum are also noted in the figure. It is important that along the spectrum, the cost and risk to the buyer vary substantially. In this context, IP is viewed as an alternative that is likely higher in cost than use of contracts and testing, or traceability, but, likely lower in cost than vertical integration solutions. As demand for IP transactions increases, it should be viewed as an effort of buyers to seek alternative forms of vertical control, versus conventional purchasing strategies involving spot transactions. It is the competitive pressures from incumbent and new-entrant suppliers that facilitate this type of exchange.

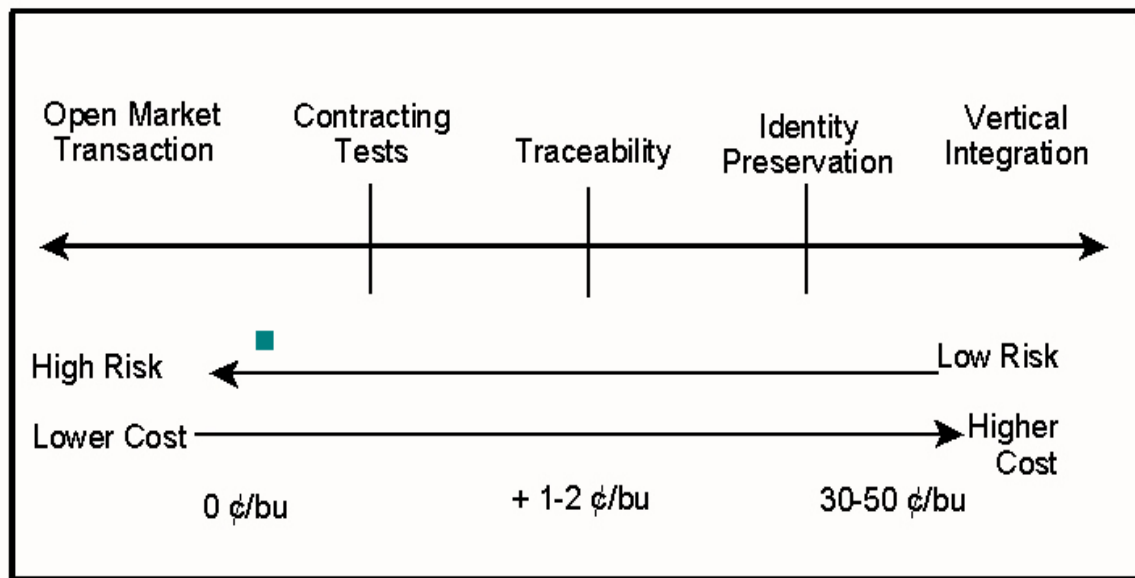


Figure 1. Spectrum of Vertical Control Mechanisms (Cost source: Author's estimates)

3. SCOPE of SURVEY

3.1. IP Marketing Organizations

Numerous organizations have been established and a number of existing organizations have been adapted to provide support of marketing activities related to specialty grain products and identity preserved grains. Organizations included in this study were identified through a search of web-based resources (organization websites, agricultural news sources, university resources), trade publications, personal referrals, and interviews. Background information and a summary of the activities of each of these organizations is included in Appendix A. These summaries point out the wide diversity and involvement in IP marketing activities. The organizations included represent a wide range of functions, with some of the organizations involved in several of the functions.

3.2. Information Collected

In addition to referencing published information, many of the organizations were contacted in a telephone interview to identify/verify current status of their IP activities and in some cases the status of the organization itself. The following information was discussed with the personnel contacted, to the extent that they were willing to share information frequently regarded as company confidential:

- form of organization (i.e., cooperative, alliance, corporate, private);
- year formed or initial entry into IP activities;
- primary commodities of interest;
- production contracts (seed requirements/sources, production protocols, inspections, storage, delivery requirements);
- grower obligations with respect to delivery;
- ownership transfer issues;
- pricing mechanisms; and
- challenges and opportunities of IP activities.

Transaction volumes and financial performance data, while of interest, were not available in a comprehensive format that could be used for comparison.

3.3. Focus of Survey

The primary focus of this study was on the role of agricultural cooperatives in IP marketing. However, numerous private/corporate organizations were included to draw on differences and similarities in approaches to identity preserved marketing activities. Organizations providing marketing support functions for IP grain marketing were also reviewed to round out the focus on IP marketing activities.

3.4. Organization Type

In many cases, producer owned entities more accurately describes the business organization. Many of the newly formed producer alliances are organized as Limited Liability

Companies (LLC). The LLC organization is very similar to a cooperative with the exception of treatment for taxation purposes. LLCs also allow for investment by non-producer members. Producer owned entities in this survey included traditional cooperatives, new generation cooperatives (NGCs), and alliances, some of which are organized as NGCs and some as LLCs.

The producer owned entities involved in specialty/IP grain marketing included in this survey are summarized in Tables 1.a. and 1.b. They are grouped by primary organizational structure: traditional cooperatives, New Generation Cooperatives (NGCs), and producer alliances. Some of the NGCs are actually organized as LLCs, while the producer alliances may be organized as NGCs or LLCs.

Traditional Cooperatives: Traditional grain cooperatives have existed for years and generally have the infrastructure to handle large quantities of commodity grains. Many traditional cooperatives are altering their business practices to adapt to the special requirements of handling IP crops. In addition to handling production contracts they find that they may have to dedicate certain of their facilities to handling IP crops exclusively.

New Generation Cooperatives (NGCs): The new generation cooperatives for the most part have been formed by producers to create processing opportunities to add value to their crops. These NGCs are characterized by “closed” or “defined” membership and, with the exception of the new alliances formed as marketing groups, require an equity investment on the part of the members. With “closed” or “defined” membership, membership is limited to those producers who purchase the right to supply the cooperative (or LLC) a specified type and amount of a crop. The processing facilities provide a market for the members’ crops.

Many of the value-added cooperatives are certified by the Internal Revenue Service as “Section 521 Cooperatives.” Section 521 generally requires that all the member/investors of the cooperative be producers and the cooperative must generally only deal with producers in its patronage transactions.

The formation of NGCs (or LLCs) to process corn into ethanol is currently the most active area in the development of producer owned entities, although they are not oriented specifically toward specialty or IP crops. NGCs organized to provide processing/marketing opportunities for specialty or IP crops include AgraMarke, American White Wheat Producers Association (AWWPA), Spring Wheat Bakers, and 21st Century Grain Processing Cooperative. AWWPA converted from a traditional cooperative structure to a closed membership NGC in 1999.

Producer Alliances: The greatest activity in specialty grain/IP grain marketing has been the formation of producer alliances. Producer owned alliances may be formed as NGCs without an equity investment requirement, or as an LLC. In most cases, they are formed as a marketing group with the goal of pooling production to provide the critical mass and logistics economies of scale generally required by major customers interested in specialty/IP grains. Producer alliances are attempting to serve as a facilitator between producers and potential buyers. Their goal is to facilitate the matching of its members’ capabilities to produce specialty/IP crops with customer needs. The organization/alliance itself generally does not take ownership of the producers’ crops.

Table 1.a. Specialty Grain / Identity Preserved Marketing: Producer Owned Entities

Organization	Headquarters	Form of Organization	Year Formed or SP/IP Initiated	Primary Commodities of Interest	Contracts	Approved Seed Required	Production, Storage, Delivery Procedures	Inspections /Sampling	Grower Obligation to Deliver	CONTRACT Obligation to BUY	Take Ownership
Cooperatives - Traditional											
AGP Grain Cooperative (div of Ag Processing Inc)	Omaha, NE	Coop-Trad	NA	Soybeans, wheat, corn							Yes
Aurora Cooperative Elevator Company	Aurora, NE	Coop-Trad	1992	Corn - white & yellow food grade	75% of time	Often	Sometimes	Yes	When contracted	When contracted	Yes
GROWMARK	Bloomington, IL	Coop-Trad	NA	Hi oil corn, white corn, soybeans	Production Contracts	per contract	per contract	per contract	Yes	Yes	Yes
Harvest States (div of CHS Cooperatives)	St Paul, MN	Coop-Trad	NA	White corn, food grade soybeans	Production Contracts	per contract	per contract	per contract	Yes	Yes	Yes
Northern FS, Inc (GROWMARK)	Sycamore, IL	Coop-Trad	1996	Food grade Soybeans	Production Contracts	Yes	Yes	Yes	Yes	Yes	Yes
Topflight Grain Co-operative	Bement, IL	Coop-Trad	1999	Soybeans, non-GMO, Hi oil corn	Production Contracts	Most of the time	Yes	Yes	Yes	Yes	Yes
Cooperatives - New Generation / Producer Owned LLCs											
AgraMarke, Inc.	Everest, KS	NGC	1997	Corn, soybeans	Production Contracts	Yes	Yes	Yes	Yes	Yes	Yes
AgVantage IP	Manhattan, KS	NGC	1998	Wheat, soybeans, corn	Production Contracts	Yes	Yes	Yes	Yes		Yes
American White Wheat Producers Assn	Atchison, KS	(Coop-Trad) NGC	(1988) 1999	White wheat	Delivery Agreement	Yes	Yes	Yes	Yes	Yes	Yes
Earthwise Processors, LLC	Moorhead, MN	LLC	2000	Organic & IP grains & seeds	Production Contracts	Yes	Good mgmt practices	Yes	When contracted	Yes	Yes
Spring Wheat Bakers	Fargo, ND	NGC	1996	HRS wheat	Uniform Marketing Agreement	Based on Quality Studies	Good mgmt practices	Yes	Yes	Yes	Yes
21 st Century Grain Merchandising, LLC	Manhattan, KS	LLC	2000	Food-grade corn, HRW wheat	Production Contracts	per contract	per contract	per contract	Yes	Yes	Yes
21 st Century Grain Processing Cooperative	Manhattan, KS	NGC	1997	HRW wheat, corn	Uniform Marketing Agreement	Approved Varieties	Good mgmt practices	Yes	Yes	Yes	Yes

Table 1.b. Specialty Grain / Identity Preserved Marketing: Producer Owned Entities

Organization	Headquarters	Form of Organization	Year Formed or SP/IP Initiated	Primary Commodities of Interest	Contracts	Approved Seed Required	Production, Storage, Delivery Procedures	Inspections /Sampling	Grower Obligation to Deliver	CONTRACT Obligation to BUY	Take Ownership
Producer Alliances (no equity investment)											
Ag Guild of Illinois™	Bloomington, IL	LLC (Alliance)	1999	Soybeans	Production Contracts	Yes	Yes	Yes	Yes	Yes	No
Dakota Pride Cooperative	Jamestown, ND	NGC (Alliance)	1998	Spring wheat	Production Contracts	Yes	Good mgmt practices	per contract	Yes	Yes	No
FarmConnect	Crookston, MN	NGC (Alliance)	2000	Soybeans	Production Contracts	Yes	Yes	As delivered to farm	Yes	Yes	No
Grain Growers Cooperative Inc.	Raleigh, NC	NGC (Alliance)	2001	Natto soybeans initially	Production Contracts	Yes	Yes	Yes	Yes	Yes, if it can be sold	Only if sold
Innovative Growers LLC	Mason City, IA	LLC (Alliance)	2000	Corn, soybeans	Production Contracts	Yes	Yes	Yes	Yes	Yes	No
Iowa Quality Producers Alliance	Lewis, IA	LLC (Alliance)	2000	Corn, soybeans	Production Contracts	Yes	Yes	Yes	Yes	Yes	No
Kearney Area Ag Producers Alliance	Kearney, NE	NGC (Alliance)	1996	Corn, soybeans	Production Contracts	Yes	per contract	per contract	Yes	Yes	No
Producers Alliance, Inc	Bloomington, IL	501.c.(3) (non-profit)	1999	Corn, soybeans	Production Contracts	per contract	per contract	per contract	Yes	Yes	No
Pro-Mar Select Wheat of Idaho, Inc	Clarkston, WA	NGC (Alliance)	1996	Hard white wheat	In transition	Yes	Education & Trust	As delivered to customer	Yes	Yes	No
Southeast Nebraska Area Producers	Lincoln, NE	NGC (Alliance)	2000	Any grain they can produce with existing equip.	Production Contracts (intent)	per contract	per contract	per contract	Yes	Yes	No
Southwest Ag Producers Alliance	Hugoton, KS	LLC (Alliance)	2000	Corn, wheat, worghum, other	Production Contracts (intent)	per contract	per contract	per contract	Yes	Yes	No

In addition to attempting to create marketing opportunities for specialty/IP crops, some of the alliances are also searching out developing agricultural business opportunities in which their members can invest. Kansas-based 21st Century Alliance has been one of the most active alliances in this area. Opportunities they have created to date for their members to invest in include a grain processing cooperative, an ag fiber procurement cooperative, a bean processing cooperative, and two dairy cooperatives. Iowa-based Ag Ventures Alliance is another alliance formed as a development organization for value-added business ventures. One of their major projects is a corn processing/ethanol project called Midwest Grain Processors Cooperative (MGP). They are proceeding with the construction of a farmer-owned ethanol plant in Iowa. To expand their investment base, membership in MGP was also opened up to members of Producers Alliance, Inc., a group of Illinois farmers. FarmConnect, a Minnesota-based alliance, is currently offering its members the opportunity to invest in a processing venture that will supply a quality soy ingredient to the rapidly growing soy foods industry.

Corporate and Private Businesses: Corporate and private businesses were included in this survey and are summarized in Table 2. Some of them have been involved in specialty/IP grain marketing activities for some time. Because of their broad and established customer base and their knowledge of customer requirements, they may occasionally offer contracts in excess of the quantity that they have firm market contracts on at contracting time. They generally take ownership of the grain contracted. The exception would be DuPont Specialty Grains and Pioneer Quality Crop Systems who arrange contracts for delivery to organizations such as Archer Daniels Midland (ADM), ConAgra Trading Group, and Consolidated Grain and Barge.

Identity Preserved Service Functions: A number of organizations are striving to provide services to help facilitate the marketing of specialty/IP grains. Organizations included in this survey are summarized in Table 3. Services offered include testing/certification, facilitation and information exchange (matching the producers with customers), information tracking services, and in some cases e-commerce support. The form of these organizations ranges from private entities, corporate subsidiaries, LLCs, to cooperatives.

Table 2. Specialty Grain / Identity Preserved Marketing: Corporate and Private Entities

Organization	Headquarters	Form of Organization	Year Formed or SP/IP Initiated	Primary Commodities of Interest	Contracts	Approved Seed Required	Production, Storage, Delivery Procedures	Inspections /Sampling	Grower Obligation to Deliver	CONTRACT Obligation to BUY	Take Owner-ship?
Cargill Dry Corn Ingredients (InnovaSure™)	Minneapolis, MN	Private	2000	Corn	Production Contracts	Yes	Yes	Yes	Yes	Yes	Yes
Clarkson Grain Co., Inc.	Cerro Gordo, IL	Private	1989	Corn, soybeans: org. & non-GMO	Production Contracts	Yes	Yes	Yes	Yes	Yes	Yes
Consolidated Grain and Barge Co. (CBG)	New Berlin, IL	JV : Itochu & Zen-noh	1990	Corn, soybeans	Production Contracts	Yes	Yes	Yes	When contracted	When contracted	Yes
Dakota Farms Intl, Ltd	Carpenter, SD	Private	1994	Soybeans, wheat, corn, barley, rye	Production Contracts	Yes	Yes	Yes	Yes	Yes	Yes
DuPont Specialty Grains (OPTIMUM®)	Johnston, IA	sub of DuPont	1998	High oil corn	Production Contracts	Yes	Yes	Yes	Yes	Yes	No
Paterson Grain	Winnipeg, MB	Private	?	HWS wheat, malt barley, soybeans	Production Contracts	Yes	Yes	Yes	Yes	Yes	Yes
Pioneer Quality Crop Systems	Johnston, IA	sub of DuPont	2000	Corn, soybeans	Production Contracts	Pioneer Hi-Bred	Yes	Yes	Yes	Yes	No
Quality Traders, Inc	Hurley, IL	sub of Itochu	1997	Corn, soybeans	Production Contracts	Yes	Yes	Yes	Yes	Yes	Yes
Specialty Grains, Inc	Gibson City, IL	Private	1976	Spec corn, food-grade soybeans	Production Contracts	Fr Spec Grains, Inc	Yes	Yes	Yes	Yes	Yes
Specialty Grains LLC	Worthington, OH	LLC (LO'L & CBI)	2000	IP grains	Production Contracts	Cropland Genetics	Yes	Yes	Yes	Yes	Yes
SunRich, Inc	Hope, MN	sub of Stake Tech	1978	Soybeans, corn, cereal grains	Production Contracts	Fr SunRich	Yes	Yes	Yes	Yes	Yes

Table 3. Specialty Grain / Identity Preserved Marketing: Service Entities

Organization	Headquarters	Form of Organization	Year Formed or SP/IP Initiated	Primary Commodities of Interest	Testing / Certification	Facilitating	Information Exchange	Information Tracking	E-Commerce
AgMotion, Inc.	St Paul, MN	Private	2001			X	X	X	X
Americrop	Pierre, SD	NGC-NP	2000	Wheat			X		
CGF Brokerage & Consulting	Saskatoon, SK	Private	NA			X	X		
Croplands	Winnipeg, MB	Private	1988					X	
CropTracer	Urbandale, IA	owned by John Deere	2000				X	X	
CropVerifeye.com	Wichita, KS	Private	1999		X		X	X	
CyberCrop.com ⁽¹⁾	Fort Collins, CO	Private	2000						X
E-Markets	Ames, IA	Private	1998			X	X		X
Farmland Dedicated Grains ⁽²⁾	Kansas City, MO	Coop-Trad	2000			X	X		
FarmNet Services, Inc	Harvey, ND	Private	2000			X	X		
Farms.com	Memphis, TN	JV	1995						X
Genetic ID Inc.	Fairfield, IA	Private	1996		X				
Identity Preserved Agricultural Products, LLC	Minneapolis, MN	LLC	1999		X	X			
Identity Preserved Intl	Greeley, CO	Private	NA			X	X	X	
IdentityPreserved.com	Iroquis, SD	Private	2000		X	X	X	X	
Internet Commodity Exchange Corp. (ICECorp.com)	Shawnee Mission, KS	Private	1999						X
Rooster.com ⁽³⁾	Bloomington, MN	JV	2000						X
Value Enhanced Grains (VEG)	Washington, DC	U.S. Grains Council	2001	Corn Grain Sorghum			X		
VantagePoint Network ⁽⁴⁾	Fort Collins, CO	owned by John Deere	1999					X	
⁽¹⁾ Financially troubled CyberCrop sold the CyberCrop name to Farms.com in April 2001. ⁽²⁾ A casualty of the ADM/Farmland joint venture in Grain Operations. ⁽³⁾ Ceased operations in December 2001. ⁽⁴⁾ John Deere announced in December 2001 that it had made the decision to “decommission” this website.									

4. SURVEY FINDINGS

4.1. Market Development

Market identification is the most important factor in market development. To benefit from identity preservation it is essential that specific markets, and often specific customers, be identified and their needs/desires targeted and met. While some specialty crops may be grown without contracts, the highest level of IP growing and marketing is done with a specific market identified and a market contract in place. There is a high level of linkage between producers and buyers of true identity preserved crops.

Customer Needs/Desires: It is essential that the needs/desires of the potential market/customer be identified. This might be specific quality traits, specific varieties, certified organic, or other management and handling characteristics. In many cases, interest in identity preservation is driven by the desire to avoid GM ingredients. Frequently, the approach of new alliances is: “Tell us what you want and we will grow it for you. We have a base of producers that can meet your quality needs.” Except for knowing what they do not want (e.g., GM) it is often difficult for customers to really say what they do want.

Contracting: Most of the organizations involved in sourcing IP grains do so after having negotiated contracts with customers. Sourcing arrangements generally take the form of production contracts with interested producers. Business relationships, particularly with international buyers, are based on confidence and trust. In addition to proving that you can meet your customers’ requirements (quality, service, consistent reliability, price), you must gain their confidence and their trust that you are a reliable and dependable supplier.

Most value-added cooperatives (Section 521 or LLC) acquire products from their members pursuant to uniform marketing agreements. A uniform marketing agreement is a standardized or common contract for all members to deliver a specific amount of product to the cooperative to be marketed and/or processed on a cooperative basis.

Time to Develop: Confidence and trust are based on personal relationships and take time to develop. It often involves visits by buyers with IP handlers and may even include visits of key growers. More than one of the firms newly organized to enter the IP grain arena indicated that it is not unrealistic for it to take at least two years to nurture the relationships required to get that first contract. Seldom is one entering a new market for which one or more suppliers do not already exist, meaning that to gain a customer, that customer must sever a business relationship with a current supplier.

Approaches: Efforts to market directly to potential customers are being pursued by some of the producer alliances. It takes time to develop the relationships that will lead to potential sales. Coordination of production/marketing efforts and lack of infrastructure are obstacles that make this approach slow and difficult. Development and establishment of a reputation as a reliable and reputable supplier is not easy for new organizations.

Representation at major industry trade shows, both domestically and overseas, is an investment that some organizations are making to try to create an awareness in their capabilities and to learn more about potential customers’ needs and requirements.

A market strategy that is being pursued by some is identifying their product as a “Branded” product. Examples include:

InnovaSure™ : a new “brand” of identity preserved corn products and a system for producing such products (Cargill Dry Corn Ingredients);

OPTIMUM® : high oil corn developed by DuPont Specialty Grains; and

Natural s’Wheat: registered trademark of American White Wheat Producers Association.

Some organizations are developing markets for their IP grains by investing in further processing ventures. Examples of this approach to market development include:

AgraMarke’s LifeLine Foods, a processor of identity preserved corn and wheat;

Spring Wheat Bakers’ frozen dough plant in McDonough, GA;

21st Century Alliance’s 21st Century Grain Processing Cooperative which operates New Mexi-Kan Milling in Rincon, NM, and Panhandle Milling in Dawn, TX; and

FarmConnect which is currently offering its members an opportunity to invest in a joint venture to form SoyLink, a manufacturer of soy ingredients for the soy foods industry.

Another marketing approach employed to some degree by most of the organizations is emphasis on the level of verification, traceability, and related market support services that they can provide.

Market “Pull”: Two industry leaders demonstrating market “pull” for identity preserved traits are General Mills and Warburton’s.

General Mills: General Mills, through their research, has identified particular varieties of wheat and oats that have special qualities that improve manufacturing efficiency and enhance the quality of their cereal products. To ensure that the desired characteristics are available, the General Mills grain division in Great Falls, MT, traces identity preserved grains all the way from the farm to the manufacturing plant. GM ensures the availability of these particular characteristics through the use of production contracts with trusted farmers (Egerstrom; Willis).

Key components of the General Mills identity preserved program include planting approved seed, field scouting using certified crop advisors, producer accountability, and product traceability. General Mills has its own seed breeding program and in the future expects to own genetics of the wheat and oat varieties that are used in their flagship cereals.

Warburton’s: Warburton’s Ltd., Britain’s largest independent bakery, is known for its high quality bread. Their research revealed that particular varieties of Canadian wheats worked best in their bread-making system, producing bread better suited to their customers’ tastes. To ensure that they can obtain the desired varieties, Warburton’s has worked with the Canadian Wheat Board to use identity preserved contracts to source specific varieties of wheat. These

contracts have been administered by Agricore and Paterson Grain who are responsible for obtaining the specific varieties and required quantities from Manitoba farmers through production contracts (Fulton; Paterson Grain).

Under the production contract, farmers agree to produce a particular variety which must be grown from certified seed. Farmers are required to use good management practices to grow the crop and protect its identity through harvest, storage, and transportation to the elevator. The farmer is also required to submit detailed records of his agronomic practices and conditions and samples of the wheat. The contracts are awarded annually to farmers who have a reputation for growing consistently good quality wheat.

For their part, Warburton's accepts all the contracted wheat that meets the agreed-upon standards. The elevator companies handling the contracts must ensure that the wheat is identity preserved throughout the entire grain handling system. They pay a management fee to the elevator companies for administering the contracts and preserving the identity of the wheat through shipment.

4.2. Procurement

Most specialty/IP crops are grown under production contracts providing producers with some assurances of a market. Contract terms are generally dictated by the customer with each production contract developed to provide the quality and handling traits essential in meeting the customers' objectives. The terms of the contract vary among crops, end-users, and producers. Key contract terms are described below:

Quantity: Contracted quantity may be expressed in bushels or acres of production. In most cases the Grower agrees to sell and the Buyer agrees to buy 100% of the specified grain grown on the contracted acreage or bushel amount specified in the contract, provided the quality standards are met.

Approved Seed: Approved seed, usually certified, is specified in the production contract. It is not an uncommon requirement that the seed be purchased from the organization that is offering the contract. Specialty Grains Inc. and SunRich require that the planted varieties be purchased from them as a part of the contract. The IP programs of Pioneer Quality Grain Systems are developed around Pioneer Hi-Bred seed offerings. Specialty Grains LLC's programs are developed around the seed programs of Cropland Genetics.

Grower Practices: Strict IP protocols are specified in the production contract, particularly when non-GM crops or organic crops are of interest. Even if specific practices are not explicitly outlined in the contract, growers are expected to follow "good management" practices with respect to care and cleaning of all equipment used for planting, harvesting, conveying, storing and conditioning, and transporting. Training and education are a part of the process of selecting growers to enter into production contracts. Just as trust is essential in developing business relationships with the ultimate customer, it is important that there be trust between the contracting entity and the producer.

Inspections: Field inspections and sampling and testing may be required at various points in the production and delivery process. These may be submitted to the entity offering the contract or third party sampling and testing may be required.

Documentation: Detailed records are required of all management practices, including purchase of the seed, chemicals applied (if allowed), and records of all field inspections and product tests.

Pricing: In most cases the production contract specifies a premium over a specified basis month on an established exchange or the posted price at selected delivery points. Producers have a designated time window (generally 3 to 6 months) in which they may “price” their product. In the case of some of the New Generation Cooperatives (closed membership) the producers have an obligation under a uniform delivery agreement to provide the grain to the cooperative which then seeks to get the best price for the grain.

Delivery: When on farm storage is utilized, as is often required, delivery is usually subject to a “buyer’s call,” i.e., the producer must deliver the product when the buyer calls for it. Delivery is to specified facilities where care is taken to maintain identification of the product for the customer.

4.3. Handling

Handling arrangements are key to successful segregation and identity preservation of specialty crops. Primary efforts to assure segregation are summarized below:

Specialized Facilities: Segregation or identity preservation of specific varieties or products with special quality traits places increased demand on handling facilities. In some cases facilities are dedicated to IP crops, minimizing the risk of contamination, particularly with respect to GM crops. Organizations with dedicated facilities for handling and storage of IP grains include Illinois Cereal Mills, SunRich, Earthwise Processors, Clarkson Grain, and others. Arrivals at these facilities are tested before they are received and any presence of GM is cause for rejection. Clarkson Grain, Topflight Grain Co-operative, and others also use on farm storage to support their IP programs.

Transportation: Maintaining IP is a challenge to the transportation system. The U.S. grain industry infrastructure is designed to move large quantities of basically homogeneous product. Demand for specialty or identity preserved crops has not, and probably will not, reach sufficient levels to meet unit train requirements. IP segregation and traceability can be maintained using containerized shipments, but at a significantly higher cost.

Further Processing: Cleaning, grading, sizing, and bagging are examples of basic further processing that may be required to meet the customers’ requirements. Grinding or cracking may also be required by some customers to provide them with an ingredient that meets their requirements with minimal processing on their part. When further processing is a part of the IP services provided, the facilities are usually dedicated to the handling of specialty or IP crops, often non-GM and/or organic crops.

4.4. IP Services

Each organization may offer an array of services related to IP marketing activities. Some of the organizations offer only supporting services without being directly involved in marketing IP grain. These services may include some or many of the following:

Seed Distribution: IP production contracts generally require selection of specific varieties of seed, usually certified seed. In some cases the contracting entity offers seed for sale. In some cases the producer is *required* to purchase his seed from the contracting entity.

Technical Information Services: Agronomic services may be provided by the contracting entity or in some cases available from a third party. This may include suggestions on tillage practices, chemical and herbicide use (or non-use), fertilization and field inspections.

Sampling/Testing: To insure compliance with the production contract, sampling and testing is often required. Samples may be required by the contracting entity, the customer who is going to receive the product, or a third party may be involved in sampling/testing of the product at various stages in the process. Testing and certification are often required to ensure that the crops are non-GMO, if that is what is specified in the production contract. CropVerifeye and Genetic ID are two of the organizations that have emerged to meet those needs.

Auditing/Verification/Certification: These services may be required in the production contract and/or marketing contract and are generally offered by third party services. CropVerifeye and Genetic ID are also striving to provide these services. Some organizations, such as Harvest States, do not routinely use third party services but will do so if the customer is willing to pay for them.

Information Data Bases: Record keeping is a very essential part of the IP process. This includes detailed records of seed, agronomic practices, field inspections, samples/tests, and all product transfers. Some entities have their own internally developed software to track this information while others use one of the several third party providers of tracking software. Information tracking services/software are offered to customers who do not want to tackle this task with in-house systems. They can be used to maintain field records, variety data, a record of agronomic practices, sampling/testing records, etc. They become increasingly important when traceability requirements are specified in the production or marketing contract. Croplands, Crop Tracer, CropVerifeye, and IdentityPreserved.com are examples of organizations offering information tracking services.

Information Exchange: The U.S. Grains Council created a website (www.vegrains.org) to allow suppliers and buyers an opportunity to exchange information about “value enhanced grains,” namely, corn and sorghum. Both suppliers and buyers can register to be a part of their Virtual Trade Show which provides a platform for them to “meet” each other and exchange information related to value enhanced grains. Information related to specific quality traits and quantities available or required are *not* listed on the website. The current Value Enhanced Grain Quality Report is also available in an online format. Information on the site is available in English, Spanish, Japanese, and Chinese.

Americrop and FarmNet Services are examples of organizations striving to offer an online inventory of specialty/IP crops which producers, consumers, handlers, and processors can benefit from by easily exchanging information related to availabilities, requirements, and who to contact to get information about inventories and to make purchase or sale arrangements. Trading activity is not completed online. Americorp was founded by South Dakota Wheat Inc. with support from the South Dakota Wheat Commission and is organized as a non-profit cooperative. FarmNet Services, a private entity organized in North Dakota, offer services to producers in a 21-state area. Farmland Dedicated Grains, one of the innovators in offering an online service to assist producers and buyers, was a casualty of the ADM/Farmland joint venture in grain operations.

E-Commerce: Ag e-commerce related ventures are struggling, as is the case with e-commerce in nearly all industries. The much heralded ag e-commerce venture Rooster.com, a joint venture between Cargill, DuPont, and Harvest States with later investors The Andersons, Bunge Corp., IMC Global, and Louis Dreyfus, ceased operations after less than two years. VantagePoint Network, formed initially by Deere & Company, Farmland Industries, and GROWMARK, lasted just over two years. Full ownership was eventually acquired by Deere & Company who “decommissioned” it in December 2001. Some of the services offered, however, are being made available through other Deere & Company agricultural management services.

In assessing the future of e-commerce in the food ingredient industry, a Promar International study noted that the majority of food ingredients are traded under the preferred supplier model. Quality and service are equally important to price in the purchasing decision. Non-price factors, which may be difficult to capture in the current e-commerce scenarios, have a significant role in determining the premiums offered in specialty/IP marketing.

5. SUCCESS FACTORS

5.1. Market Development

A key factor in successful marketing of specialty/identity preserved crops is identification and development of markets for the crops of interest. Specific markets, and often specific customers, must be identified and their needs/desires targeted and met. Traits of specific interest might be quality traits, specific varieties, certified organic, or management and handling protocols. Simply being non-GM is often the primary characteristic of interest. A market driven focus that allows the market to “pull” the IP grain through the system is a key to success. Growing a crop and trying to “push” it through the system does not fit the nature of specialty/IP marketing.

There is an important linkage between producers and buyers of true identity preserved crops. Markets are built on relationships and relationships built on trust and confidence. Frequently personal contacts, which take time to develop, are required to develop the relationships needed to be successful in marketing IP crops. It is also important to consider that one seldom is entering a market for which one or more suppliers do not already exist, meaning that to gain a customer, that customer must sever a business relationship with a current supplier.

5.2. Contracting

Contracting is critical to the success of specialty/IP grain marketing, providing producers with some assurance of a market. Customers enter into contracts to specify their particular requirements (seed, quality traits, production/handling protocols, etc.) and to ensure that their needs/desires are met. The contracts may be directly with the producer or producer group (alliance), but are more likely to be with a broker or grain merchandiser/supplier who is handling specialty/IP crops.

After negotiating market contracts with their customers, organizations involved in sourcing IP grains negotiate production contracts with interested producers. Just as customers look for a dependable and reliable supplier, suppliers look for producers that they can depend on to follow the often strict protocols required in producing and handling IP grains. Production contracts vary with the customer and their needs/desires. Producers must decide if the “premium” specified is sufficient to allow them to profitably comply with the numerous and often strict protocols and requirements in the contract.

5.3. Information Systems

A great deal of information is required to help ensure that contract requirements are being met. Detailed records of production practices, sampling and testing results, and tracking of the product as it moves from the seed company to the consumer, are essential in supporting certification and traceability requirements. Extensive, easy-to-use databases and information systems must be available to each of the participants in the specialty product, identity preserved supply chain. Ability to handle large amounts of information for traceability/trackability requirements are important at all levels in the supply chain.

5.4. Infrastructure

The vast majority of the current grain marketing infrastructure is geared to rapidly handling large volumes of a homogeneous commodity. Dedicating facilities to segregating and handling specialty/IP grains reduces the capacity of the system. On farm storage plays a significant role in IP grain handling.

Transportation costs are generally higher for IP grains. Segregation and size of shipments precludes use of unit trains and accompanying lower rates. In many cases containerized shipments are required to meet customer demands. Not only is the use of containers costly, access to the intermodal terminals required to move containers may limit access or add additional costs to the grain. To meet strict quality and traceability requirements, however, containerized shipments of grain are expected to continue to grow.

5.5. Lack of Success

There have been some unsuccessful efforts to capitalize on identity preserved grain marketing activities. The most important factor leading to failure has been the inability to realize a premium sufficient to cover the additional costs associated with the strict protocols for handling identity preserved. The difficulty in realizing a sufficient premium is the major factor in slowing many IP efforts. Spring Wheat Bakers, which discontinued their grain merchandising business, noted that the marketplace was just not willing to pay enough of a premium as yet to continue with their grain merchandising activities. Other producer groups have expressed similar concerns. Customers say they want specific traits and compliance with specific protocols but in many cases are unwilling to pay a premium sufficient to make it worthwhile for the producer to make the commitment to producing and handling IP grain.

Most of the producer alliances and some of the other entities trying to arrange sales of IP grains have yet to realize their goals. They underestimate the amount of time, money, and effort required to develop the markets and to maintain effective relationships.

6. CHALLENGES and ISSUES

There are a number of challenges and issues facing the grain industry and participants who want to engage in identity preserved activities. These include but are not limited to the following:

6.1. Cost vs. Premiums

The biggest challenge to the growth and acceptance of identity preservation from the supply side is the realization of sufficient premiums to cover the additional costs of segregated systems and the costs associated with meeting consumer requirements for identity preservation and traceability. In many cases the inability to realize premiums sufficient to cover the additional costs associated with producing and handling specialty grains has curtailed ambitious IP efforts. Spring Wheat Bakers curtailed their IP merchandising activities because they were not able to realize premiums sufficient to cover the additional costs. Dakota Pride Cooperative has had limited success with IP contracts but notes that buyers generally are not yet ready to pay sufficient premiums for specific qualities. Markets for white wheat have not developed as rapidly as many thought they would, as buyers are reluctant to pay any significant premiums.

6.2. Distribution of Benefits in the Supply Chain

Additional costs related to identity preservation, segregation, and traceability are incurred at all levels of the supply chain—from growers/producers, handlers, transporters, processors, and end-users. If the sum of the costs of all the players in the supply chain exceed the value to the buyer, obviously the system will not work. When the premium does exceed the sum of the costs, the problem of determining how the premiums are distributed must be addressed. Meeting the challenge of ensuring that each of the players in the supply chain realize a fair benefit for their extra effort and costs is essential to the development of successful IP efforts.

6.3. Food Safety and Traceability

Some argue that the main reason for increased interest in IP is the issue of food safety. This may hold true in the case of perception about GM products but does not appear to be a significant issue yet in the case of trait-oriented specialty products. Traceability, the ability to trace products through the production and distribution chains, is necessary to enable withdrawal from the market in case of unexpected adverse effects. Traceability is a consumer-driven issue which can increase buyer confidence. It has taken on an even greater emphasis with the heightened concerns related to potential bioterrorism activities.

6.4. Managing Risks of Climatic Induced Quality Losses

A significant factor in the inability of producers to meet specified quality requirements is the deviations related to climatic variables. Buyers need to source product from a broad geographical area to minimize quality deviations and ensure that they can meet their quality and quantity requirements. Likewise, suppliers must consider developing multiple origins to ensure buyers that they can meet the quality and quantity requirements with some degree of confidence. This is one of the reasons why buyers may choose to deal with a producer alliance whose membership covers a broad geographical region as opposed to dealing with individual producers.

6.5. Infrastructure and Current Environment

Operating without a handling infrastructure designed to accommodate identity preservation adds significantly to the costs and hinders the development of IP efforts. As demand increases and customers are willing to pay sufficient premiums, infrastructure changes will follow.

A problem with increased product variety is that segregated products are often in competition with each other and demand becomes more difficult to predict. This is especially true in the grain industry where demand for genetically modified commodities and conventional commodities may be difficult to separate. When demand is more difficult to predict due to substitutable products, higher inventory levels must be maintained to ensure the same service level (Simchi-Levi, Kaminsky, and Simchi-Levi).

Customers realizing added-value, and being willing to pre-commit through production contracts, can reduce the inventory levels that would be required to meet IP activities within the traditional grain merchandising system..

7. SUMMARY

Demand-based drivers of change are transforming the farm-to-market system. Providing products that meet discriminating consumer preferences, at a price that they are willing to pay, is a major challenge in the changing market system (Ainsworth). These changes are not rapid and not without challenges. Identity preservation is a big part of this transformation. Handling of specialty/identity preserved grains in a grain industry system designed for bulk handling of basically homogenous commodities adds costs that are not always reflected in the premiums offered. In addition to segregation, traceability requirements are a key element in IP systems.

New organizations, whether they be cooperatives, alliances, or private/corporate business entities, established specifically to try and take advantage of the developing trend in identity preserved grain marketing, are finding the going difficult. Development of markets for specialty and identity preserved grain is based on building relationships and trust. Relationship building takes effort and time; more time than most new entities anticipate.

Contracting plays a major role in the production and marketing of specialty/IP grains. Although there are several different kinds of contractual arrangements and terms, executing a contract does change some of the traditional relationships between producers, buyers, and others in the market channel.

Many of the producer alliances whose initial objective was to market specialty/IP grain have turned their focus toward value-added processing activities. Producers Alliance, Inc. (Illinois) and Kearney Area Ag Producers Alliance (Nebraska) are two organizations who are now focusing on ethanol plants. Farm Connect (Minnesota) is working on a joint venture to enter the soy food ingredient market.

The primary advantage that the New Generation Cooperatives and/or producer alliances have is more direct access and influence over their member/producer base. Adherence to strict production protocols can be overseen by the organization. There is also an inherent degree of trust with foreign buyers who often like to be “connected” with the producer.

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APPENDIX A

ORGANIZATIONS INVOLVED in SPECIALTY / IDENTITY PRESERVED GRAIN MARKETING

ORGANIZATIONS INVOLVED
in
SPECIALTY / IDENTITY PRESERVED
GRAIN MARKETING

A brief summary of the background and activities of the organizations reviewed in this study are included in this appendix. The summary listing on the first two pages is an alphabetical list of the organizations reviewed with an indication of the primary IP activity of the organization., i.e., engaged in contracting and marketing of specialty/IP grain or providing services to support specialty/IP grain marketing activities.

This information was derived from printed articles, internet news sites, company websites, and personal communications.

<u>Company</u>	<u>Contracts</u>	<u>Services</u>
Ag Guild of Illinois™	✓	
AgMotion, Inc.		✓
AGP Grain Cooperative	✓	
AgraMarke, Inc	✓	
AgVantage IP		✓
American White Wheat Producers Association (AWWPA)	✓	
Americrop SM - Americas Quality Crop Network		✓
Aurora Cooperative Elevator Co.	✓	
Cargill Dry Corn Ingredients (InnovaSure™)	✓	
CGF Brokerage & Consulting		✓
Clarkson Grain Company, Inc.	✓	
Consolidated Grain and Barge (CGB)	✓	
Croplands - The System™		✓
CropTracer™		✓
CropVerifeye.com™		✓
CyberCrop.com (see also Farms.com)		✓
Dakota Farms International, Ltd	✓	
Dakota Pride Cooperative	✓	
DuPont Specialty Grains	✓	
E-Markets		✓
Earthwise Processors, LLC	✓	
FarmConnect	✓	
Farmland Dedicated Grains		✓
FarmNet Services, Inc		✓
Farms.com		✓
Genetic ID Inc.		✓
Grain Growers Cooperative Inc.	✓	
GROWMARK	✓	
Harvest States	✓	
Identity Preserved Agricultural Products, LLC		✓
Identity Preserved International, Inc.		✓
IdentityPreserved.com		✓
Innovative Growers LLC	✓	
Internet Commodity Exchange Corp. (ICECorp.com)		✓
Iowa Quality Producers Alliance, LLC	✓	
Kearney Area Ag Producers Alliance (KAAPA)	✓	

<u>Company</u>	<u>Contracts</u>	<u>Services</u>
Northern FS, Inc.	✓	
Optimum Quality Grains, LLC (see DuPont Specialty Grains)	✓	
Paterson Grain	✓	
Pioneer Quality Grain Systems	✓	
Producers Alliance, Inc.	✓	
Pro-Mar Select Wheat of Idaho, Inc.	✓	
Quality Traders, Inc.	✓	
Rooster.com		✓
Southeast Nebraska Area Producers (SNAP)	✓	
Southwest Ag Producers Alliance	✓	
Specialty Grains, Inc.	✓	
Specialty Grains LLC	✓	
Spring Wheat Bakers	✓	
SunRich, Inc.	✓	
Topflight Grain Program	✓	
Value Enhanced Grains (VEG)		✓
VantagePoint Network, LLC		✓
21 st Century Grain Merchandising	✓	

Ag Guild of Illinois™¹

The Ag Guild of Illinois™ is a for-profit limited liability company (LLC). An organizational meeting was held in July 1999 with the goal of signing up 34 member-producers. Each producer joining the cooperative agreed to buy ownership stock for \$500 and to provide at least 200 acres, or 20% of his acreage to the guild's aggregated acreage. The Guild, incorporated in 2000, is headquartered in Bloomington, IL.

The Ag Guild of Illinois is a group of experienced farmers who are working together to tailor their crops' composition to the special requirements of food manufacturers, soybean processors, and other end-users. Farmers in the Guild identify market opportunities, plan a group growing strategy, select varieties, and negotiate with grain buyers. Instead of contracting for a set price per bushel, the Guild's marketing approach emphasizes the actual components of the crops they harvest – the levels of oil, protein, amino acids, isoflavones, and other attributes needed by their customers.

The Guild's mission: To deliver a consistent quality product for food, feed, and industrial markets in a manner that increases profitability for Guild members and their customers.

The Guild's focus is on end-user customization of crops, which begins with identifying the varieties that will deliver the nutritional ingredients and industrial components the end-user needs. The Guild will negotiate a contract with the end-user to harvest and deliver a minimum number of bushels with specified levels of these attributes.

The end-user will have full access to the production phase, and be involved in all growing decisions – from genetic selection to crop inputs. Before and during the growing season, the Guild consults with the end-user to determine varietal attributes, select chemical inputs, plan crop samples and production data, and deliver the contract bushels to designated facilities. The harvested crops are analyzed and farmers are paid based on the levels of the components specified.

The Guild is an offshoot of a project called the Initiative for Quality in Soybeans, funded by the Illinois Soybean Checkoff Board.

¹ Ag Guild of Illinois website: www.agguild.com

Ag Guild of Illinois brochure.

Personal Communication.

AgMotion, Inc.¹

AgMotion, Inc. is a private company based in St Paul, MN.

From the AgMotion website “Home” page:

- AgMotion is a global leader in building and operating cost-effective traceable supply chains for the agri-food sector.
- AgMotion combines the trade-execution functions of traditional grain merchandisers with the most advanced tracking and data management software platform in the industry: The AgMotion Marketing System (AMS). Our customers are assured that they get exactly what they want, when and where they want it, with a complete record of production and handling history of each individual shipment.

From the AgMotion website “Company” page:

- AgMotion, Inc. delivers value to our customers by combining years of global agricultural marketing with advanced technology, logistics, and all the other tools to market Identity Preserved (IP) grains into world markets.
- We facilitate origination, marketing, shipments, and payments of agricultural and industrial commodities worldwide using our proprietary Internet technology, and old-fashioned customer service.
- We help our trading partners move up in the value chain by enabling better communication and strengthening relationships between producer and customers.

AgMotion’s proprietary marketing system (AMS) is described as supporting the entire process for sourcing and tracking Identity Preserved and Specialty grains.

US Commodities, LLC, a wholly-owned subsidiary of AgMotion, Inc., markets agri-food products to the food, feed, and industrial sectors in North America, South America and Asia. The company operates from five offices located in St Paul, MN, Minneapolis, MN, Alexandria, MN, Fremont, NE, and Irapuato, Mexico.

North Star Commodity Investment Co., LLC, was purchased by AgMotion in May 2001, and operates as a wholly owned-subsiidiary of AgMotion. North Star provides brokerage, risk management, and advisory services to grain and dairy producers, elevators, and integrated feeding operations.

¹ AgMotion website: www.agmotion.com

“AgMotion Buys Firm,” *The Business Journal* of the Twin Cities, American City Business Journals, Inc., May 28, 2001, <http://twincities.bcentral.com/twincities/stories/2001/05/28/story8.html> - accessed 09/05/01).

AGP Grain Cooperative¹

Ag Processing Inc (AGP) is a farmer-owned cooperative engaged in the procurement, processing, marketing, and transportation of grain and grain products. Formed in 1983, today its owners include 285 local cooperatives and 10 regional cooperatives, representing 300,000 farmers from 16 states throughout the United States and Canada.

Soybean processing is AGP's primary business. With its nine soybean processing plants AGP is the fourth largest soybean processor in the United States based on capacity.

The AGP Grain Group includes **AGP Grain Cooperative** and AGP Grain Ltd. AGP Grain Cooperative is a grain marketing cooperative with members and elevator operations in Nebraska, Kansas, Missouri, Minnesota and South Dakota. AGP Grain Ltd., although not a cooperative, is committed to the marketing and handling of grain in the Red River Valley.

In what AGP Grain calls "The Partnership Era" they continue to expand relationships and strategic alliances with producers, local elevators, seed companies and end-users. These alliances combine origination, handling, storage, transportation, and marketing expertise to build *identity-preserved* crop programs for GMO, non-GMO, and specialty crops.

One of these alliances is/was with Spring Wheat Bakers. Spring Wheat Bakers originates high quality and specialty variety wheat, while AGP Grain facilitates identity preservation and marketing to international customers demanding confidence in quality and food safety.

¹ Ag Processing Inc website: www.agp.com

"AGP Grain Ushers in 'The Partnership' Era," *AGP News*, August/September 2001, <http://www.agp.com/news/2001/0809/features/article1.shtml> - accessed 02/05/02).

AGP News Release, "Ag Processing Inc Reports Successful Fiscal Year 2001," January 18, 2002, <http://www.agp.com/news/release/2001/agpnr2001jan21.shtml> - accessed 02/05/02).

AGP Grain Cooperative *Annual Report* 2001.

AgraMarke, Inc.¹

AgraMarke is a growers association with a focus on quality production and identity preservation. It is organized as a farmer owned, non-profit, marketing cooperative. Based in northeast Kansas (Everest), the cooperative formed by some farmers in Kansas in 1997, now has 350 members in three states. With the creation of Lifeline Foods, the organization has evolved into a closed member new generation cooperative.

AgraMarke members must submit to strict planting, harvesting, and storage guidelines to guarantee that their crops meet customer specifications. Planting must be planned a year in advance to make sure fields are protected. AgraMarke members also must submit to inspections of their fields by independent evaluators.

AgraMarke members expect to earn about 10% more by growing crops that meet certain characteristics. AgraMarke segregated 5.5 million bushels of crops in 2000, mostly corn. They expected to segregate 7.5 million bushels of corn, wheat, and soybeans in 2001.

Corn and soybeans are the primary crops in AgraMarke's area with several specialty crops being produced under contract. AgraMarke has extensive experience in the identity preservation and segregation of the following crops:

- Non-GMO milling quality corn
- White corn
- Waxy corn
- Small food grade soybeans
- Large food grade soybeans
- Soybean seed production
- Non-GMO soybeans

Lifeline Foods, a separate entity, was created by AgraMarke to purchase The Quaker Oats Co.'s St Joseph, MO, cereal manufacturing plant in June 2001. The company plans to use the plant to mill and process locally grown grains into food products and ingredients for various companies.

¹ AgraMarke website: www.agramarke.com

"Pushing 'identity preserved' crops," Eric Palmer, *Kansas City (Mo.) Star*, June 20, 2001. Reprinted in *AgWeek*, June 25, 2001.

"Co-op to buy Quaker Oats plant in St. Joe," *Hannibal Courier-Post*, Hannibal, MO, December 26, 2000, http://www.hannibal.net/stories/122600/bus_1223000034.html - accessed 07/25/01).

Personal Communication.

AgVantage IP ¹

AgVantage IP is a non-profit cooperative established in 1998 by a small group of certified seed growers in Kansas. It was originally formed to pool the limited supply of white wheat in the state to multiply the seed supply. In its first business endeavor, AgVantage IP negotiated an identity preserved white wheat seed project for Farmland Industries.

The cooperative currently represents some 80 professional Kansas-based seed producers boasting a combined database of nearly 20,000 farm customers/producers. Membership ranges from small farmer-owned seed companies to large companies. AgVantage IP membership requirements include status as a certified seed grower in Kansas, plus a \$75 annual fee.

Collectively, the group produces 75,000 acres of seed wheat and markets approximately 2,000,000 units of seed wheat. Additionally they produce approximately 30,000 acres of soybeans. They also produce and market other crop seeds such as corn, grain sorghum, and sunflowers.

The cooperative's mission has evolved to where it is now: To devise custom identity preservation programs that begin with seed production and end with delivery of the specified grain products to the end-users.

They describe themselves as having the expertise and flexibility to:

- devise a turnkey identity preservation program that begins with seed increase and production and ends with delivery of the specified grain product to the end-user
- perform a management role, such as: seed production, seed distribution, or contracting agent between owners of technologies and farm producers.

AgVantage IP is striving to be the “go between” to put emerging technologies in the seed industry together with the people or companies that can utilize them.

¹AgVantage IP website: www.agvantageip.com

Leake, Linda. “Planting Seeds,” *Agri Marketing*, July/August 2002

American White Wheat Producers Association ¹

The American White Wheat Producers Association (AWWPA) is a producer owned cooperative marketing corporation that was formed in Kansas on May 13, 1988. Its initial mission was to propagate white wheat in a manner that best served the interests of wheat producers.

Soon after formation, AWWPA determined that the best return for producers would not be in propagating white wheat as just another commodity wheat, but rather, as a product that would yield some premium. To this end AWWPA invested the next seven years in efforts to learn what exactly would be the best marketing strategy for generating a profitable return for its producer members. Based on its experiences, AWWPA has developed a marketing program that is centered on an *identity preserved, targeted delivery, value-added, premium-ingredient* product. It also sells some of its identity preserved grain as premium commodity grain, but the potential return on the sale of commodity grain is substantially less than the sale of value added ingredient products.

Targeted delivery is a concept developed by AWWPA to source, process, and deliver specific suitable wheat ingredients to meet customer's exact needs. AWWPA has registered *Natural s'Wheat* (said "sweet") as a trademark to identify their quality Hard White Winter Wheat ingredients.

Presently, AWWPA is engaged with its members in contract production, processing, marketing, and delivery. AWWPA tracks and coordinates the flow of identity preserved lots of grain (often individual fields) through selected storage and processing facilities hired by, or leased to, AWWPA. Ingredients are processed by AWWPA in order to meet customer's specific requirements. AWWPA also markets some grain as value added commodity grain for resale to commodity users.

In 1999, AWWPA converted to a closed, or defined-membership cooperative structure.

AWWPA is headquartered in Atchison, KS.

¹ AWWPA website: www.awwpa.com

Prospectus, American White Wheat Producers Association, Atchison, KS, dated August 16, 1999.

Personal Communication

AmericropSM - Americas Quality Crop Network¹

Americas Quality Crop Network (**AmericropSM**), headquartered in Pierre, SD, is a non-profit charitable, educational, scientific corporation created to enable producers, consumers, handlers, and processors to benefit from the vast array of crop traits. A nonprofit structure permits maximum public benefit. The corporation was founded by South Dakota wheat producers with the cooperation of South Dakota Wheat Inc. (a consortium of more than 500 growers) and a financial commitment from the South Dakota Wheat Commission. The project was made possible by wheat check-off dollars.

The corporation creates and maintains an information network and communication links to enable the public, producers and consumers, to communicate with one another and create their own beneficial relationships.

The corporation locates and arranges with laboratories for testing the quality characteristics of crops. The corporation maintains a website database of crop quality characteristics. Interested consumers can search the database with their own quality characteristics. They can refine their search to locate suitable producers. Then with a single e-mail message they can communicate with one or many producers as well as processors, handlers, and other intermediaries to obtain their identity preserved crop. This begins a dialog that may result in mutual benefit to the consumer, processor, handler and producer, all public parties.

The corporation has no beneficial interest in any resulting transaction but merely facilitates the communications. The corporation will report aggregate data to the public via its Internet website and to government agencies for dissemination to the public.

Transportation will be by truck, train barge, and ship by independent handlers but with identity preservation. The trend toward containerized shipping will expand, especially for overseas markets.

Americas Quality Crop Network is organized under the South Dakota Nonprofit Corporation Act and is organized within the meaning of Section 501(c)(3) of the Internal Revenue Code. The \$200 annual dues help to meet the operating costs of **Americrop**. All services to the public are offered at cost or free. Therefore, operations must be financed from memberships, donations or grants.

¹ Americrop website: www.americrop.com

“Handcock urges change in mind-set, calls for support of Americrop,” *Milling & Baking News*, January 1, 2002.

Aurora Cooperative Elevator Co.¹

Aurora Cooperative Elevator Co., in Aurora, NE, has dedicated personnel and put forth significant efforts to encourage its members to get involved in value-enhanced grains (VEG). The cooperative decided to get into VEG in order to add to its producers' bottom line by bringing opportunities to grow crops with more value. They established a specialty grain marketing division in 1992.

The cooperative, with 23 locations in the state, built a reputation among its 3,000 members and rewarded those loyal producers who were reliable and produced quality crops with the first chance at VEG *contracts* the co-op would arrange with end-users.

The co-op handled more than 130,000 tons of value-added crops in 2001, compared to less than 10,000 tons of VEG in 1993. The cooperative also invested in a seed company, popcorn company, and ethanol plant as a way to add value to its members' grains. Today 10% of all grains that move through the elevator are VEG, with 15-18% of the corn being VEG.

The difficulty in meeting contract specifications and the extra care required in handling and drying grains are issues that must be dealt with.

¹ "Aurora Cooperative Elevator Co. website: www.auroracoop.com

"Co-op offers opportunities by focusing efforts on VEG," *FEEDSTUFFS*, July 30, 2001.

Personal Communication.

Cargill Dry Corn Ingredients (InnovaSure™) ¹

InnovaSure™ is an identity-preserved corn brand launched by Paris, IL-based Illinois Cereal Mills (ICM), a subsidiary of Cargill, Inc., in the fall of 2000.

InnovaSure™, Illinois Cereal's brand name for both the IP corn products and the system for producing them, comprises a full range of identity-preserved whole corn, yellow goods, and masa products grown to customer specifications.

Steps in the InnovaSure™ Identity Preserved (IdP) System are:

1. Corn Seed Selection
2. Grower Network
3. Storage and Handling
4. Processing
5. Distribution
6. Traceability

The system includes a rigorous selection of corn hybrids, contract-grown corn, close relationships with seed suppliers and growers, ownership of elevators that handle only IP grain, extensive testing of product, and "rigorous document trailing."

Key aspects of the InnovaSure™ traceability systems include: planting of approved hybrid seeds, contract-grown with a network of professional growers, handling in on farm separate storage bins, and elevators dedicated exclusively to IP grain, processing under strict protocols, and testing before distribution.

ICM has more than 400 contract growers in Illinois and Indiana. Elevators selected to handle InnovaSure™ products deal exclusively with IP.

In April 2002 Cargill announced that Illinois Cereal Mills, with production facilities in Paris, IL, and Indianapolis, IN, and Seaforth Corn Mills, Liverpool, England, would be operating under a common trade name, "Cargill Dry Corn Ingredients."

¹ Cargill Dry Corn Ingredients website: www.cargilldci.com

InnovaSure™ "Solutions for and ever changing marketplace" CD, Cargill Foods.

"Identity preservation: capturing quality and delivering consistency," *Milling & Baking News*, June 19, 2001.

Press Release, Cargill, April 10, 2002.

CGF Brokerage and Consulting ¹

CGF Brokerage and Consulting is a Saskatoon, Saskatchewan, based grain broker.

From the CGF website:

List your commodities on the Internet

- For a small fee we will list your commodities on the internet (World Wide Web). Your samples will be seen by a large number of qualified buyers in the marketplace.
- CGF produces a scanned photograph of your bin run sample, cleaned sample, and dockage. We match the scanned photographs with the analysis and display them together on the internet. Buyers can then see what they are buying.
- In effect, CGF is creating a farmers market for your commodities. Included with the listing fee is a detailed analysis of your commodity, which we'll provide to you by telephone, fax, mail, e-mail or a combination of these.

CGF acts like an auctioneer, bringing buyers and sellers together.

Three-quarters of its business is special crops. All of the buyers are domestic (Canada) processors, who don't deal with export markets. The company conducts credit checks on those buyers who are not licensed and bonded.

CGF makes most of its money from the seller. The company is said to have a database of 5,500 farmers from whom it can source grain, but only a small portion of those producers will market their product through the broker at any one time.

The fees are \$2.50 per tonne for special crops and oilseeds and \$2.00 per tonne for feed grains. There is a 50 cents per tonne charge for freight and a \$12 fee to list commodities on the web.

¹ CGF Brokerage and Consulting website: www.cgfbrokerage.com

Pratt, Sean. "Web photos help buyers," *The Western Producer*, August 23, 2001.

Clarkson Grain Company, Inc.¹

Founded in 1974, Clarkson Grain pioneered *Direct Delivery Marketing* to link farmers with storage directly to end-users. In 1989, CG began adapting this system to supply selected conventional, organic, and pesticide restricted crops to food processors.

Clarkson Grain uses farm storage throughout the United States to support its IP supply programs. It uses the farm infrastructure as well as its own certified facilities to move crops from farm to buyer through cleaning, conditioning, packaging, and shipment. They own and operate specialty elevators across central Illinois and control similar facilities elsewhere.

Clarkson Grain supplies grains and oilseeds selected and segregated by variety and/or quality to processors seeking competitive advantage and market distinction. Processors can trace delivery back to the farm and seed of origin, linking the consumer to the source of his food or feed. For clients wishing to avoid GMO materials, Clarkson Grain offers a rigorous, disciplined 3rd party verified non-GMO corn and soybeans. Verification overlaps auditing, inspection, sampling and testing performed by the Illinois Crop Improvement Association and its sister AOSCA agencies. Inspection starts with the seed before planting and continues through shipment.

Clarkson Grain seeks qualified farmers over 20 states to produce, store, condition, and deliver organic, transitional, and/or conventional crops under Identity Preserved protocols.

They are the largest U.S. supplier of organic soy and grains to food manufacturers and feed processors.

Clarkson Grain's main office is in Cerro Gordo, IL.

¹ Clarkson Grain Company website: www.clarksongrain.com

Engleson, Laura. "An Obtainable Organic Ingredient," *Dakota Farmer*, Farm Progress, May 25, 2001.

Personal Communication.

Consolidated Grain and Barge Co. (CGB) ¹

Consolidated Grain and Barge Co. (CGB) is a business of CGB Enterprises, Inc., an integrated company headquartered in Mandeville, LA. CGB Enterprises is a joint venture owned equally by Itochu, one of Japan's largest trading companies and Zennoh, the Japanese federation of agricultural cooperatives.

CGB has been an early leader in international trade in value-added crops and has built a reputation in part on its ability to serve specialty markets. Their program is targeted for the export market and is centered around their river terminals and country elevators that feed grain to those terminals. CGB has 70 storage facilities in the United States.

CGB's Grain Division activities include purchasing, selling, warehousing, handling, and shipping of grain and grain products to U.S. and International markets. CGB specializes in Identity Preserved handling of food grade corn and soybeans. They have achieved ISO 9001 registration at four of their locations. CGB has a well documented system to preserve the identity of specialty grains from the producer to customer shipment.

Consolidated Terminals and Logistics Co. (CTLCo), another division of CGB Enterprises, provides the multimodal infrastructure to facilitate handling and shipment of the products.

¹ Consolidated Grain and Barge Co. website: www.cgb.com

"CGB's IP Soybean Program," *Grain Journal*, 2000.

Reuters News Service, JAPAN: September 8, 1999, <http://www.connectotel.com/gmfood/rf080999.txt> - accessed 08/06/01.

Personal Communication

Croplands - The System™¹

Croplands - The System™ is an integrated business solution for the commercial agriculture industry. Built around an enterprise data model and spatial data warehouse, it is comprised of application modules targeted to grain handling and logistics, crop inputs, crop insurance, and agricultural land use. The thirteen user-friendly modules are designed to work together and as stand-alone tools:

- Producer Manager
- Call Forward Manager
- Advisor
- Crop Consultant
- Field Service Manager
- Test Manager
- Contractor
- Scaler
- Settlements
- Analyst
- Crop Inputs Manager
- Grain Handling Manager
- Administrator

Croplands - The System™ is a product of Linnet - The Land Systems Company, a geographic information systems (GIS) integrator and land management application products company. Established in 1988, Linnet is based in Winnipeg, Manitoba. Linnet is a private company owned in equal part by Stantec Inc., SNC Lavalin Inc., and the Linnet Employee Corporation.

The Croplands software has been adopted by Warburtons Bakeries Ltd. of Great Britain to assist in managing their IP program. Through Warburton Technical Center in Brandon, Manitoba, the company contracts with approximately 800 farmers to manage 160,000 acres of IP wheat annually.

¹ *Croplands - The System™* website: www.croplandsthesystem.com

Croplands - The System™ Product Brochure.

“GIS Software System Integrates IP Production,” *IP Preview*, published under the auspices of AdFarm, Calgary, Alberta, Winter 2001.

CropTracer™¹

Agribusiness leader John Deere has joined forces with VantagePoint Network™, and CropVerifeye, LLC to develop and introduce an innovative *crop identity-tracing system* called CropTracer™. The new service, part of John Deere's AgManagement Solutions, combines John Deere's field data collection technology with VantagePoint's data warehousing capabilities and CropVerifeye's third-party certification and field auditing services.

As introduced on the CropTracer™ website:

Step 1: Capture Essential Data (Creating a birth certificate for your crop!)

John Deere AgManagement Solutions

From primary tillage practices to harvest information, John Deere's GreenStar® precision farming systems let you electronically monitor and record nearly all aspects of your crop practices and field conditions.

Step2: Validate Your Practices (Rock solid verification of your sound practices!)

CropVerifeye.com™

CropVerifeye offers a long list of field audits and services that trace the genetic integrity and identity of your agricultural products. They can also provide identity-preserved training programs.

Step 3: Manage the Information (A vault for your valuable information!)

VantagePoint Network™

VantagePoint Network™ is the perfect place to store, organize, and analyze farm data. It provides a secure method for you to provide this valuable information to trusted suppliers, contractors, and advisors.

The announcement in December 2001 that John Deere was decommissioning the VantagePoint Network™ included a statement that information about a more powerful version of CropTracer™ would be forthcoming.

¹ "John Deere ... to introduce the new CropTracer™ System,"
<http://www.deer.com/Newsroom/croptracersys.htm> - posted 02/26/2001.

CropTracer™ website: customer.johndeere.com/ag/homepage/features/croptracer.html

John Deere Announcement: December 7, 2001, <http://www.vantagepoint.com> - accessed 01/30/02.

CropVerifeye.com™ ¹

CropVerifeye.com LLC, formed by a group of ag investors in late 1999, is aimed at monitoring and verifying value-added crops all the way from the seed to the final food processors.

From the CropVerifeye.com™ website:

CropVerifeye.com™ provides **SOLUTIONS** to **VALIDATION** and **VERIFICATION** issues for food and grain processors and buyers around the globe. Our field-validated database approach creates product **TRACEABILITY** that supports the **DIFFERENTIATION** of crops and resulting products being offered in today's **FOOD** supply chain.

The highest of three audit levels includes, but is not limited to:

- Farm and Field visits by a CropVerifeye.com™ trained auditor
- Inspection of seed purchase documentation
- Variety verification
- Equipment sanitation checks
- Bin sanitation checks
- Examination of field isolation and border rows.

All contracts are customized and may include as many inspection points as required by the contract.

Offices are located in offices in Wichita, KS; Ft Wayne, IN; and Mahomet, IL.

John Deere partnered with CropVerifeye in development of the CropTracer™ identity tracing system which is offered as a part of John Deere's Ag Management Solutions service.

¹ CropVerifeye.com website: www.cropverifeye.com

“John Deere ... to introduce the new CropTracer™ System,”
<http://www.deer.com/Newsroom/croptracersys.htm> - posted 02/26/2001.

CyberCrop.com¹

CyberCrop.com, a privately held company based in Fort Collins, CO, was launched in May 2000.

CyberCrop.com operated an online grain exchange, where buyers and sellers of wheat, corn, and other commodities could arrange contracts. The website also offered news, weather reports, and other information of importance to the grain industry.

Buyers and sellers of grain could arrange contracts on the website but there were no features emphasizing or facilitating handling of identity-preserved grains.

In January 2001 CyberCrop reported more than 14,000 cash grain bids, representing 643 million bushels of grain, were posted daily on the site. It said it had 10,000 registered growers and 600 buyers with posted bids, representing 1,790 grain-buying locations. The volume of actual trading made on the site was not made public.

In April 2001, financially troubled CyberCrop sold the CyberCrop.com name to Farms.com. No employees, grain trading or other technology were involved. Farms.com does not intend to continue with grain trading.

¹ “CyberCrop sells to Farms.com,” LocalBusiness.com, Denver, April 25, 2001, http://www.localbusiness.com/Story/Print/0,1197,DEN_744982,00.html - accessed 07/27/01.

“Farms.com Buys U.S. Grain Web Site CyberCrop.com,” Reuters, April 25, 2001 <http://www.farms.com/pr/infogate4-25-01.html> - accessed 07/30/01.

Farms.com website: www.farms.com

Dakota Farms International, Ltd ¹

Dakota Farms International, Ltd is an agricultural products and marketing company. Incorporated in South Dakota in 1994, Dakota Farms is headquartered in Carpenter, SD. Its objective is to market agricultural products both domestically and for export.

Dakota Farms offers organic and conventional soybeans, barley, wheat, corn, rye, and buckwheat. Products also include organic and conventional soy flour, wheat flour, and soy meal (non-GMO).

A large part of the production comes from the Walter Family Farm with a total acreage owned and rented of over 5,200 acres. Dakota Farms also contracts with over 150 growers in 10 U.S. states and Canada. The growers must agree to follow a strict IP system. Strict quality control is maintained over contract growers by inspecting fields before harvest to insure quality and providing advice on how to maintain and improve quality.

¹ Dakota Farms International website: www.dakotafarms.com

“Dakota Farms updates family farm tradition to succeed in new, value-added markets,” *The Non-GMO Source*, February 2002.

Dakota Pride Cooperative ¹

The Dakota Pride Cooperative, formed by North Dakota Farmers Union, Jamestown, ND, was established to assist producers in growing specific crop varieties that have unique characteristics which may command a premium price from the market.

Dakota Pride Cooperative was created in June 1998 to promote two concepts:

- put a large pool of grain together to command a higher price
- market efficiency, to deliver an identity-preserved product from the grower to the buyer.

“We only go and try to find more members, as we have more opportunities to market identity-preserved products . Membership is only \$25. We’ve never done a membership drive.” Mark Watne, Jamestown, ND, secretary-treasurer of the coop. DPC has about 100 members.

The co-op is currently dealing primarily in hard red spring wheat. They continue to explore opportunities to pool grain to exercise a measure of market power that could improve net farm income.

A partnership between Dakota Pride Cooperative and the North Dakota State Mill began in 1999, when 23 coop members raised Glenlea, an older variety of hard red spring wheat that the State Mill uses to “blend up” flour made from other wheat varieties, on 2,800 acres. In 2000, approximately 50 members of Dakota Pride Cooperative seeded 7,000 acres to Glenlea for the State Mill.

In 2001 Dakota Pride members raised 320 acres of AC Vista, a hard white spring wheat, and 320 acres of Laser, a hard red spring wheat for the State Mill. This is addition to the 8,000 acres of Glenlea that DPC members planted for the mill.

¹ “Dakota Pride Co-op fills a need,” *The Jamestown Sun*, Jamestown, ND, 2000, <http://www.jamestownsun.com> - accessed 03/27/01.

“Dakota Pride Cooperative raising Glenlea for ND Mill,” North Dakota Farmers Union, <http://www.ndfu.org/dpc.htm> - accessed 08/15/00.

“DPC adds variety to its identity-preserved mix,” North Dakota Farmers Union, <http://www.ndfu.org/Ufarmer/05-25-2001-4.html> - accessed 08/03/01.

Personal Communication.

DuPont Specialty Grains ¹

On June 7, 2000, **Optimum Quality Grains, LLC** officially became DuPont Specialty Grains. Optimum Quality Grains is the former joint venture between the DuPont Company and Pioneer Hi-Bred International, Inc. It was founded in January 1998 to develop and market added-value grains and oilseeds to end-users. The DuPont Company and Pioneer merged business in October of 1999.

DuPont Specialty Grains encompasses all the end-use grain production and marketing functions of Optimum Quality Grains and draws together current end-use and specialty grain efforts from across other business units of the DuPont BioSolutions Enterprise.

The business philosophy of DuPont Specialty Grains is to provide:

- Market-driven development of specialty grains that meet specific customer needs for animal feed, food grade corn, soy products, and industrial grain marketing.
- New markets for differentiated grain that provide solutions to nutritional, environmental and quality issues for livestock producers.
- Novel business systems that allow values to be captured and shared with customers and partners.
- Coordinated management of DuPont product and service offerings to end-use customers.
- Technical and nutritional support to customers.
- Unequaled experience in managing the production coordination systems that connect growers with specific end-use demand.
- Internet-based grain production coordination systems that connect growers with specific end-use demand.

DuPont Specialty Grains is located in central Iowa (Johnston) and has offices in Japan, Taiwan, and Mexico. Through these international offices, DuPont Specialty Grains manages customer relations in Asia, Mexico, Central America, and the Caribbean.

DuPont Specialty Grains markets OPTIMUM[®] brand products. The OPTIMUM[®] High Oil Corn is a value-enhanced corn and OPTIMUM Extra[™] has added value for the corn wet milling industry. Relationships with **Archer Daniels Midland, ConAgra Trading Group, and Consolidated Grain and Barge** allow DuPont Specialty Grains to manage the growing export demand for OPTIMUM[®] brand products.

DuPont is an open (multi-seed) platform focusing on OPTIMUM[®] High Oil Corn while Pioneer Quality Crop Systems focuses on Pioneer seeds and seed development. Both entities utilize OSCAR[™], a proprietary internet-based contracting system. The OSCAR[™] system allows farmers to identify elevators near their farm that are offering contracts for IP products. Farmers can learn details of the contract by viewing a sample contract.

¹ DuPont Specialty Grains website: www.dupontsg.com

Personal Communication.

E-Markets ¹

E-Markets introduced an online grain production contracting system in 1997 and an internet-based input ordering system in 1998.

E-Markets products and services include:

- ◆ **AgContractSM Information Management Tool**
The AgContract information management tool enables its users to contract, verify, track, and deliver products used in production agriculture such as grain, crop inputs, feed materials, etc.
- ◆ **AgOrderSM Input Management Tool**
The AgOrder input management tool connects ag retailers with suppliers and customers for real-time input ordering and inventory management.
- ◆ **DRCSM Pricing Tool**
Decision Rules for ContractsSM (DRCSM) is a pricing tool that enables elevators to help producer customers make logical marketing decisions.
- ◆ **NetMarketSM Grain**
NetMarket is an online, bid publishing application launched in June 1999. It allows terminal elevators, processors, and feedlots to publish bids securely to groups of country elevators, as well as producers, in “real time.”
- ◆ **Attribute E-XchangeSM Trading Management Tool**
The Attribute E-Xchange is an exchange that trades on the specialty attributes of identity preserved grain. This trading management tool is primarily a private audience marketplace with public exchange capabilities. The application can coordinate transactions between food processors and the first handlers of grain. It enables negotiating based on attributes that meet specific needs.

In May 2000, E-Markets stated that more than 2,000 grain elevators in 10 states, representing more than 20% of the grain sold in the Midwest, offered one or more of E-Markets’ online applications. These numbers were expected to grow rapidly.

E-Markets is headquartered in Ames, IA.

¹ E-Markets website: www.e-markets.com

“E-Markets Decision Rule Contracts ...,” *Grainnet*, posted May 16, 2000,
<http://www.grainnet.com/BreakingNews/articles.html?ID=6867> - accessed 05/17/00.

Earthwise Processors, LLC ¹

Earthwise Processors, LLC, was created in early 2000, following the purchase of the Busch Agricultural resources plant in Moorhead, MN, by a small group of organic farmers in the Fargo, ND-Moorhead, MN area. The owner of Agri-Tel Grain Ltd., Beausejour, Manitoba, is a minority investor.

The Earthwise plant has storage capacity for 370,000 bushels of grain. It has a complete cleaning line to process product for human consumption or for seed and is able to keep commodities identity-preserved in more than 10 bins. Commodities can be put in small bags, totes or in bulk.

Their goal is to source the seed, source the grower, and find an end market for that grower, whether it's organic or conventional crops, but in an identity-preserved situation.

Some of the identity-preserved grains and seeds Earthwise deals with on a frequent basis include: soybeans (non-GMO), white spring wheat, extra-strong spring wheat, waxy corn. They also deal with a large variety of organic grains and seeds including: rye, wheat, corn, oats, barley, flax, sunflowers, soybeans, popcorn, millet, peas, and lentils. No products testing positive with GM traits are accepted at the Earthwise facility.

Earthwise will offer production contracts when specific market contracts have been identified.

¹ Earthwise Processors website: www.earthwisepro.com

Promotional Brochure, Earthwise Processors, LLC.

"A 2nd niche: Earthwise of Moorhead, Minn., is latest identity-preserved market entry," *AgWeek*, September 4, 2000.

Personal Communication.

FarmConnect¹

FarmConnect is a producer owned entity organized with the intent to identify production and marketing opportunities that are intended to improve profitability and risk management for its members. FarmConnect held its membership drive from mid-February to April 1, 2000. Minnesota producers were eligible to participate by contributing a one-time membership fee of \$500 up front and \$100 per year thereafter. Headquarters are in Crookston, MN.

FarmConnect is an alliance of 650 of the most progressive crop and livestock producers in Minnesota. Their stated objective is to specialize in supplying crops and livestock products that possess specific traits or characteristics for specific uses.

FarmConnect provides a system for producers to identify changing market opportunities while providing a way for buyers to identify farmers who can produce the type, quality, and quantity of product desired.

As an alliance of producers, FarmConnect seeks to:

- ◆ Connect alliance members and end-users to agricultural support groups in a focused effort to meet market place needs.
- ◆ Identify new and expand existing markets for agricultural products.
- ◆ Develop strategic relationships between alliance members and end-users.
- ◆ Capture more profit for alliance members in the value chain.
- ◆ Promote profitable diversifications and enhance long-term rural sustainability.

FarmConnect's first business deal was shipping a 27-car unit train containing 90,000 bushels of identity-preserved wheat originating out of Hallock, MN, in early March 2001, to one of the nation's largest food companies.

They are working with a company to supply food-grade soybeans for the tofu and natto markets in Japan both now and for the future. Their first transaction was wheat but they state that they have a number of different projects in different stages and are working on business arrangements involving other crops, as well as, livestock.

FarmConnect presented an investment opportunity for its members to enter the rapidly growing soy food ingredient market, in a series of meetings in early 2002. If successful the new FarmConnect Company, SoyLink, will be a joint venture with Soy Driven Enterprises, a leading partner to farmers in value-added agriculture.

¹ Farm Connect website: www.farmconnect.com

"FarmConnect: An Accelerated Effort to Connect Producers with Market Opportunities," Information Brochure distributed at information meetings in early 2000.

FarmConnect Press Release: "FarmConnect Launches SoyLink," January 11, 2002, <http://www.farmconnect/html/soylink.htm> - accessed 01/30/02.

Personal Communication.

Farmland Dedicated Grains ¹

Farmland Dedicated Grains, an online merchandising and traceability application for trait-specific and identity-preserved grains, was unveiled by Farmland Industries in September 2000. Its objectives were to allow producers to receive more value for identity-preserved grains; cooperatives to play a pivotal role in identifying qualified producers and certifying grain for the program; and processors to gain operational efficiencies and satisfy consumer demands.

From Farmland news release - 09/12/00:

Dedicated Grains is a web-based program that provides its users with data warehousing capabilities for storing and sharing detailed production and grain profile data. The intent is to help producers market their crops in a way that captures value beyond the farm gate.

Membership in Farmland Dedicated Grains is free of charge. With program sign-up available online, producers can choose from a menu of marketing options. The flexible program allows producers to choose whether to market their own grain themselves or to use their local cooperative traders. Local cooperatives can decide whether or not they want to tap the logistical and marketing expertise of Farmland's grain merchandising group.

Initially, Farmland Dedicated Grains concentrated on all varieties of wheat, eventually planning to expand to include other grains, with corn and soybeans being the most immediate followers. Ultimately, Farmland hoped to make Dedicated Grains an internationally recognized seal of grain quality assurance.

Technology for the Dedicated Grains web-based program was developed by VantagePoint Network, LLC, Fort Collins, CO, a limited liability company of Deere & Company, Farmland Industries, Inc., and GROWMARK, Inc.

In April 2001, Farmland Industries and Archer Daniels Midland Co. (ADM) announced that they had reached an agreement to enter into a grain marketing relationship. A new company, ADM/Farmland Inc., was formed and will lease and operate Farmland's grain assets throughout the United States. The Farmland Dedicated Grains program fell casualty to that joint venture.

¹ Farmland Industries website: www.farmland.com

News Release, September 12, 2000, Farmland Industries, "Farmland develops online Dedicated Grains Program," <http://www.farmland.com> - accessed 07/26/01.

Personal Communication.

FarmNet Services, Inc ¹

FarmNet Services, an internet-based service, was launched in June 2000, to provide a one stop center for ag information and grain marketing services. They are based in Harvey, ND.

Services on the website include state-related ag news, weather, markets and local prices, and their grain marketing services.

FarmNet Services online *Grain Procurement Services*:

The Grain Inventory Search Service allows Producers and Elevators to list grain inventories and describe in detail the specific characteristics such as grade, variety, test weight, protein, and other traits of each inventory listed.

Elevators and other buyers can enter the specific characteristics they are looking for and/or search inventories to find those matching the buyers' exact needs.

The search feature matches buyers or sellers based on specific search criteria which may include characteristics, volume available, and location. It provides information (email primarily and telephone contacts) allowing users of the service to contact selected parties for more information about inventories and purchasing and sales arrangements to include pricing and transportation. Trading activity is **not** completed online.

The annual fee for producers to list their inventories is \$200. This service allows the producer to list as many inventories and make as many changes as the producer wishes during the one year term. This annual fee includes participation in the Grain Procurement Service at no additional charge.

Qualified buyers pay an annual fee of \$500 to access the listings via the Grain Inventory Search Service. The buyers may make an unlimited number of searches for this annual fee. A service fee on each bushel of grain procured is charged to the buyer.

Work is progressing on the addition of twenty states to the web site which will provide detailed ag information customized for each state as is currently the case for North Dakota. With this expansion, *farmnetservices.com* will cover all of the small grain-producing states. The launch date of the additional 20 states and grain marketing services is expected in early 2002.

¹ FarmNet Services website: www.farmnetservices.com

FarmNet Services, Inc promotional brochure.

Pates, Mikkell. "Harvey firm launches Web site for N.D. ag business," *AgWeek*, June 19, 2000.

Demo by Richard Haman, President of FarmNet Services, at Big Iron, September 12, 2001.

Farms.com¹

Established in 1995, **Farms.com** provides a variety of information targeted to the agriculture community, including marketing advisories for crops and livestock and online cattle auctions.

Farms.com is constantly evolving with the development of new technologies. Current efforts are focused to serve three key areas: cattle, swine, and crops.

With the objective of helping ranchers and producers use the internet to do better, more profitable business, Farms.com has two components: the Marketplace and the Farms.com Manager.

- ◆ **Marketplace:** an active environment where producers and their customers can meet to sell and buy their products. There are online auctions using their real-time BidAsk™ software and exchanges where swine and soon cattle will be actively traded 7 days a week, 24 hours a day.
- ◆ **Farms.com Manager:** provides producers with several innovative risk management and decision support aids, from business calculators to in-depth business plan development tools.

Farms.com is headquartered in Memphis, TN, and is owned by vTraction (Rabobank International's internet initiative), eSparks (Sparks Cos.), Divine, and its original founders. Robert Sparks, CEO of Farms.com, is former vice chairman of Sparks, an international agribusiness research and consulting firm.

In April 2001, financially troubled CyberCrop sold the CyberCrop.com name to Farms.com. No employees, grain trading or other technology were involved. Farms.com will *discontinue* grain trading.

¹ "CyberCrop sells to Farms.com," LocalBusiness.com, Denver, April 25, 2001, http://www.localbusiness.com/Story/Print/0,1197,DEN_744982,00.html - accessed 07/27/01.

"Farms.com Buys U.S. Grain Web Site CyberCrop.com," Reuters, April 25, 2001, <http://www.farms.com/pr/infogate4-25-01.html> - accessed 04/30/01.

Farms.com website: www.farms.com

Genetic ID Inc.¹

Genetic ID Inc. is a rapidly growing testing and certification company specializing in GMO testing. It was founded in 1996. Its main office is in Fairfield, IA.

Genetic ID's Identity Preservation Programs include:

- **Government Regulation Verification Program**

This program provides third party verification of compliance with region specific regulations. Components of the program can involve inspections, sampling, testing, and audit trails.

- **Verified Sampling Program**

This program provides third party verification of product contract delivery terms such as specification of a certain GMO detection threshold.

Genetic ID is a joint venture partner in Cert ID Ltd with LawLabs, a leading food consultancy and laboratory based in the United Kingdom. Together in 1999 they established Cert IDSM, a program to certify products as non-GMO. Cert ID provides documented traceability.

¹ Genetic ID website: www.genetic-id.com

Genetic ID brochure/information folder.

Grain Growers Cooperative Inc.¹

Grain Growers Cooperative Inc., headquartered in Raleigh, NC, is a marketing cooperative founded by 15 North Carolina grain growers. Initial efforts have focused on trying to get Japanese food companies interested in North Carolina-grown natto soybeans, a boutique crop that is currently popular in Japan.

From the Grain Growers Cooperative website:

The Grain Growers Cooperative, Inc. is a farmer-owned and operated agricultural cooperative, producing and distributing high quality grains and oilseeds nationally and internationally. We are dedicated to promoting economic stability among independent farmers through value-added and specialty crop production, including identity preserved production.

In October 2000 the Grain Growers Cooperative was awarded a grant of \$250,000 from the Golden Leaf Foundation to assist them in achieving an expedited entry into the marketing of grains, soybeans, and other crops for the benefit of the state's farmers.

In August 2001 the executive director of the N.C. Soybean Producers Association reported that no Japanese companies have yet signed contracts for North Carolina-grown natto beans. "I would expect we will get a few contracts later this year," he said. "With any luck we will start producing and delivering the first shipments next year."

¹ Grain Growers Cooperative website: www.graingrowersinc.com

"North Carolina farmers court Japanese soy buyers." Soyatech.com, posted August 9, 2001, <http://www.soyatech.com/bluebook/news/viewarticle.ldml?article=20010809-1> accessed 08/14/01.

"Awards, grant cycle ending October 16, 2000," Golden Leaf Foundation, Rocky Mount, NC, <http://www.goldenlraf.org/award.htm> - accessed 08/14/01.

Personal Communication.

GROWMARK¹

GROWMARK's Grain Division is a leader in the Midwest in specialty grain programs, for both processing and export markets:

- A high oil corn export program is being developed in conjunction with ADM. This program totals about 75 million bushels of high oil corn from farmers in Illinois, Indiana, Iowa, and Wisconsin.
- Working with Novartis and Penford Foods of Cedar Rapids, IA, GROWMARK is involved with a special white corn program for 2001. This will involve 125,000 acres in southeast Iowa. Three GROWMARK cooperatives are involved in this venture.
- Programs are being developed to produce clear hilum soybeans for the Japanese tofu market. These will involve about 75,000 acres and will include ADM.

GROWMARK is committed to expanding specialty crop programs by working through member cooperatives, ADM, Farm Bureau initiatives, and other cooperatives where possible.

GROWMARK is a retail farm-supply and grain-marketing cooperative headquartered in Bloomington, IL. Through its member-owned co-ops (about 100 in retail and 250-plus in grain marketing) GROWMARK serves farmers in the midwestern United States and Ontario, Canada.

¹ GROWMARK website: www.growmark.com

GROWMARK Company capsule: www.hoovers.com

Harvest States ¹

Harvest States is the integrated grains and foods division of CHS Cooperatives, a producer-to-consumer agricultural cooperative owned by 325,000 farmers and their local cooperatives from the Great Lakes to the Pacific Northwest and from the Canadian Border to Texas. CHS was formed in June 1998 by the merger of two farmer-owned organizations: Cenex, Inc. and Harvest States Cooperatives. Harvest States itself was the result of a 1983 merger between two regional cooperatives: Farmers Union Grain Terminal Association (GTA) and Oregon-based North Pacific Grain Growers.

As the largest U.S. grain cooperative, Harvest States' fully integrated grain-based food system links producers to consumers through a broad range of products and services. It operates a full complement of agricultural operations, from locally controlled farm supply to grain marketing to food processing and distribution.

As the output group of CHS, Harvest States is organized around four grain-based business: Country Operations, Grain Marketing, Milling and Processing, and Foods.

At the CHS Cooperatives annual meeting in November 2001, one of the highlights presented for the next fiscal year included "focusing on destination delivery of grain to provide customers at home and around the world what they want, when they want it." With this objective Harvest States is moving its corporate focus from commodity grain to specialty grain. As an integrated system, Harvest States is uniquely positioned to move specialty and identity preserved crops.

Harvest States is focusing on handling of IP crops with specific traits. Current crops of interest include white corn, food grade soybeans, canola, and a small amount of organic wheat. The nature of the production contracts and specified protocols is dependent on the customer and the end-use requirements. A strong paper trail is a part of the system, using internally developed software. Third party verification systems, such as CropVerifeye, may be utilized if the customer requires these services and is willing to pay for them.

Harvest States is headquartered in suburban St. Paul, MN. It has operations in 21 states and sells grain and related products in some 90 other countries.

¹ Harvest States website: www.harveststates.com

Sands, Laura. "No Fast Track for Designer Grains," *Top Producer* magazine, October 2001, http://www.agweb.com/news_show_news_article.asp?articleID=80210&newscat=GN - accessed 01/03/02.

"Annual Meeting Report: CHS Cooperatives on Its Way to Adding Value for Producers," *Grainnet*, posted November 29, 2001, <http://www.grainnet.com/info/articles.html?type=bn&ID=12> - accessed 11/30/01.

Personal Communication.

Identity Preserved Agricultural Products, LLC ¹

Identity Preserved Agricultural Products, LLC (IPAP) describes themselves as a research and marketing company representing hundreds of North America's premier farmers who can grow grain to the exacting requirements of their global grain buyers. These requirements can include seed variety, quality, nutritional content, certifications, handling, and delivery. IPAP's network of key producers spans nine states.

Based in Minneapolis, MN, IPAP was formed in 1999 by five investors. One of the investing partners is CropVerifeye.

Matt Stokes, President, indicated in January 2002, that the IPAP business plan is currently being reviewed and will be revised to more realistic assumptions, based on lessons learned to date.

¹ Identity Preserved Agricultural Products, LLC website: www.go-ipap.com

Personal Communication.

Identity Preserved International, Inc. ¹

Identity Preserved International aims to provide certifying procedures that place added value to the producer's bottom line by providing identity preservation protocols that meet processor/buyer ingredient needs:

- Match the needs of buyers with the production capabilities of producers.
- Working with processors capable of running identity preserved products.
- Provide protocol and identity preservation services for livestock entities seeking specific trait feed stuffs for their livestock operations.

The following information will be gathered from producers and buyers and maintained in IPI's database:

- Producer's acres, soil type, on-farm storage capacity, type of harvesting equipment, transportation capabilities, field locations, etc.
- Processor-end-user-buyer requirements for specific trait commodities.
- Crop variety and hybrid traits.

Registration for IPI services for either Buyers or Producers must include a non-refundable registration fee of \$500.

Identity Preserved International is headquartered in Greeley, CO.

¹ Identity Preserved International website: www.foodtraits.com

IdentityPreserved.com ¹

IdentityPreserved.com, announced in September 2000, is a strategic business unit of Agricultural Information Technologies of Iroquois, SD. AIT, founded in 1991, develops electronic devices and systems for capturing and reporting a wide range of information. The company's production management systems are at the core of its identity preservation efforts.

IdentityPreserved.com offers a range of on-site and online services aimed at streamlining identity preserved operations. These integrated services are designed to help users fulfill identity preserved requirements and enable buyers, contractors, processors, and crop producers to better collaborate within identity preserved systems.

The centerpiece of IdentityPreserved.com is **IP Track**, an online application that centralizes IP information. It provides traceability from farm to finished product and integrating data from many sources and dispersing it to widespread users.

Other services include **IP Audit**, an independent third-party auditing service, and **IP Labs**, both of which integrate directly with IP Track. IP Labs enables producers and buyers to determine grain qualities by field or by bin.

The ConAgra Trade Group has chosen IdentityPreserved.com to augment their existing identity preserved support systems. They have indicated that they use the IP Track online tracking system, CropTouch information management tools and IP Audit inspection services to help preserve the identity of grains they handle in their IP grain-marketing program.

¹ IdentityPreserved.com website: www.identitypreserved.com

"ConAgra unit tracks IP grain on Web," *BAKING & SNACK*, July 2001.

Innovative Growers LLC ¹

Innovative Growers (IG) LLC was formed by a group of Iowa farmers with the assistance of Iowa State University Extension. It was organized as a legal entity in January 2000 and began accepting members in August 2000. Membership is open to any farmer who produces crops and is a resident of Iowa. IG's administrative offices are in Mason City, IA.

The mission of IG is to increase grower-member competitiveness and profitability by building long-term business relationships with seed companies, processors, end-users, and others. Customers are described as companies and/or individuals wanting specialty grains.

Innovative Growers plans to provide a variety of services to customers including:

- One-stop shopping
- Large-scale production
- Production risk reduction
- Geographic specificity
- Identity preservation
- Trace-back
- Tight production controls
- Quality assurance
- Dependability
- Transportation/Logistics
- Research

A "membership unit" costs \$200 and gives the member the right to grow up to 10 acres of specialty grains for Innovative Growers. To join IG you must purchase a minimum of 10 membership units (\$2,000 and the right to grow up to 100 acres).

The potential benefits of joining IG are described as:

- Access to contract opportunities generated by IG's marketing staff.
- Benefits from IG's marketing and legal staff who will negotiate contract terms with end-users.
- IG assistance in helping the grower-member analyze contract opportunities, submit bids, grow crops to specification, properly store and transport crops to their final destination.
- Purchasing specialty grain production inputs from IG at discount prices.

IG plans to actually enter into contracts with end-users to deliver specialty grains and contract with their individual grower-members to produce the specialty grains. Primary focus is on corn and soybeans.

The IG effort is supported by Iowa State University Extension and the Iowa Grain Quality Initiative.

¹ Innovative Growers website: www.innovative-growers.com

"New Grower Alliance Being Formed in Iowa," *DirectAg.com*, February 8, 2001, http://www.directag.com/directag/news/article.jhtml?article_id=1000212 - accessed 08/08/01.

Personal Communication.

Internet Commodity Exchange Corp. (ICECorp.com)¹

Internet Commodity Exchange Corp. (ICE) was incorporated in May 1999, to provide greater access to grain markets for commodity traders. They launched an interactive, business-to-business exchange for the agriculture industry in late 1999. ICECorp.com enables registered commodity traders to securely trade cash commodities online with greater access and real-time price discovery, allowing all buyers and sellers to see posted grain prices.

No specific features are addressed to facilitate handling of identity-preserved grains.

ICECorp.com facilitates transactions for commodities such as corn, wheat, soybeans, and feed by-products, simulating pit trading in an “outcry” environment. ICE provides an added value by allowing known industry players to buy and sell anonymously. In September 2000, ICE announced that Farmland Industries agreed to post 2 billion bushels of grain on the site over the next 36 months.

Farmland Industries was one of the original investors in ICE. Seaboard Corporation, an international agribusiness and transportation company, also holds an equity stake in ICE.

In May 2001 ICE announced that they had teamed with Intellicast.com, TradeSignals.com and eSignal, to provide ICE customers with a new look and improved weather and quotes information.

Also in May 2001, they stated that more than 600 million bushels of grain had been posted on ICE since commencing operations in October 1999. In May they claimed that more than 380 registered users, representing more than 1,800 facilities worldwide, had access to agricultural resources through the ICE online exchanges.

Internet Commodity Exchange Corp. is based in Shawnee Mission, KS.

¹ ICECorp.com website: www.icecorp.com

Farmland News Release: “Farmland Industries Invests in ICECorp.com - 12/06/99,
<http://www.farmland.com/newsrel/archive/icecorp.htm> - accessed 07/26/01.

“Farmland Industries Commits Two Billion Bushels of Grain to ICECorp.com,” Grainnet, Posted September 12, 2000, <http://www.grainnet.com/info/articles.html?type=ar&ID=7997> - accessed September 14, 2000.

Iowa Quality Producers Alliance LLC ¹

Iowa Quality Producers Alliance is a group of farmers aiming to put together a “virtual elevator” on the Internet to use as a bargaining chip for better prices from processors. In September 2000 they were reported to have about 80 members from 15 Southwest Iowa counties with the possibility of reaching 200 members. Headquarters are in Lewis, IA.

The objective of the alliance is to procure specialty grain contracts for producers and to research and develop producer owned grain processing. Their primary focus is on corn and soybeans.

Cost to join is \$1,000 per producer.

In June 2001 Iowa Quality Producers Alliance was awarded a \$100,000 grant from the USDA Value Added Agricultural Product Development Program.

¹ “Bargaining fever hits the Midwest as prices fall,” *Successful Farming Magazine*, September 2000, <http://www.agriculture.com/sfonline/sf/2000/September/0010bcol.html> - accessed 08/08/01.

Euken, Jill. “Iowa Quality Producers Alliance,” Iowa State University Extension, <http://www.extension.iastate.edu/Pages/communications/success/eukenj.htm> - accessed 11/19/01.

“List of Value Added Agricultural Product Market Development Grant Recipients,” USDA Rural Development, <http://www.rurdev.usda.gov/rd/newsroom/2001/vadgrecips.html> - accessed 08/08/01.

Personal Communication.

Kearney Area Ag Producers Alliance (KAAPA) ¹

The Kearney Area Ag Producers Alliance (KAAPA) was formed in 1996 by a group of Kearney, NE, area farmers and agribusinessmen in response to that area losing some economic development opportunities. The objective of KAAPA is to help area farmers get better prices for their products by getting producers involved in value-added marketing and processing opportunities.

KAAPA has generated some contracts for high oil and identity preserved corn and food-grade soybeans for the tofu market but producer-to-user contracts for specialty and identity-preserved grains have not taken off as hoped.

Several of the group's income producing projects did not materialize. A potential Heartland Fibers corn stover pulp plant originally planned for a site in Kearney was moved to York after the FAA determined that because of the proximity to the Kearney airport the smokestack would have been too tall. The alliance also lost out on some promising grain marketing deals, mostly because the group could not compete with transportation costs.

A September 1999 news article mentioned that KAAPA had cut its staff from four full-time employees at inception to two, then none, in part because of the plant site move. Board members then became the overseers of the group. Board members continue to research and develop new opportunities for alliance members, however, the alliance did contract with the Farm and Ranch Network in Kearney to provide services.

In January 2001 KAAPA received a grant of \$75,000 from the Nebraska Governor's Value-Added Agriculture Initiative to study and draft plans for an ethanol plant in the Kearney area to capitalize on the abundant local corn supply.

Access to listings of Specialty and Identity Preserved Grain Contracts are noted as a benefit of KAAPA membership. This includes high oil corn, waxy white corn, and other specialty grains.

Membership Fee for 2001 - \$200.

¹ KAAPA - Kearney Area Ag Producers Alliance website: agnet.mccooknet.com/wff/KAAPA

"Specialty soybeans grabbing a market," theIndependent.com from *The Grand Island Independent*, Grand Island, NE, September 14, 1998, http://www.theindependent.com/Archive/091498/stories/091498/New_hhdsoybeans14.html - accessed 08/07/01.

"Tough times force Kearney ag group to make staff cuts," theIndependent.com from *The Grand Island Independent*, Grand Island, NE, July 10, 1999, http://www.theindependent.com/stories/071199/new_agwoe0711.html - accessed 08/07/01.

"Sailing rough seas..." theIndependent.com from *The Grand Island Independent*, Grand Island, NE, September 13, 1999, http://www.theindependent.com/stories/091399/fea_HHDkaapa13.html - accessed 08/07/01.

"Governor awards 10 grants for value-added ag products," *York News-Times*, York, NE, January 25, 2001, http://www.yorknewstimes.com/stories/012501/ag_0125010007.shtml - accessed 08/07/01.

Personal Communication.

Northern FS, Inc.¹

Northern FS, Inc. is a locally owned agricultural cooperative serving producers in DeKalb, Kane, and McHenry in Illinois, and Walworth in Wisconsin. Northern FS maintains 14 locations throughout their territory. The main office is located in Sycamore, IL.

Formed in 1937 Northern FS is a leader in meeting producer needs in production agriculture and crop marketing. They are the No. 1 specialty grain shipper in the GROWMARK System in spite of the fact that they don't own any grain elevators.

The Northern FS specialty crop program started small. When the program began 300 acres of specialty crops were under contract. In 2001, it ballooned to 10,000 specialty crop soybean acres and 3,500 specialty crop corn acres. The goal is to increase specialty products by 5,000 acres each year.

Farmers purchase the seed and grow the crop. At harvest, the crop either goes in the farmer's bins or is delivered to the river. Northern FS works with ADM to secure barges to transport to the end-user. There are set delivery periods, and the farmer is contacted when it is time to take the product to the river. Either the farmer or Northern FS arranges trucking to the river. In addition to barges, some products are loaded in sealed 40-foot containers and shipped to Oakland or Los Angeles by rail or truck. It is not opened until it arrives.

Farmers have to be aware of what they are getting into when they sign on to grow specialty crops. Requirements include:

- Clean planter
- Adjoining fields free of GMO products
- Fields scouted three times
- Clean combines
- Clean on farm storage
- Clean trucks
- Farmers deliver when notified

When the shipment is delivered to the barge, a certificate with the type of bean and the farmer's name accompanies the load to Japan. When the soybeans are processed, the certificate goes along, and is hung above the finished product in the grocery store.

¹ Northern FS website: www.northernfs.com

GROWMARK website: www.growmark.com

Personal Communication.

Paterson Grain¹

Paterson Grain has been handling Canadian grain exports and building relationships with quality producers for the better part of the last century. The company was established in 1908 and over the years has diversified into value-added services and products.

Identity Preserved Programs

N.M. Paterson & Sons Limited offers an array of Identity Preserved Programs to provide added value through specialized market opportunities for producers and added value for end-users through specific product and quality and identity preserved programs.

- **Warburton** Wheat Production Contracts
- Hard White Spring Wheat Program
- Malt Barley Production Contracts
- Non-GMO Soybeans
- Organic Production

Paterson Grain (N.M. Paterson and Sons Limited) is headquartered in Winnipeg, Manitoba. They operate approximately 50 elevator sites across the Canadian Prairie Provinces (Alberta, Manitoba, Saskatchewan), including seven high throughput inland terminal locations.

One of Paterson's largest IP programs is their Warburton's (the United Kingdom's third largest baker) contract program. Paterson serves to administer these contracts and handle and maintain the identity of this very unique quality throughout the handling system and right to the buyer's door.

¹ N.M. Paterson and Sons Limited website: www.patersongrain.com

Pioneer Quality Grain Systems ¹

Pioneer Quality Crop Systems, based in Johnston, IA, is a new and developing group with an end-user focus on identity preserved and specialty crops. They are focused on Pioneer seed and seed development, where as DuPont Specialty Grains is an open (multi-seed) platform focusing on OPTIMUM[®] High Oil Corn.

Their primary role is one of facilitation and support in development of grower/production contracts and marketing contracts.

Both Pioneer Quality Crop Systems and DuPont Specialty Grains utilize OSCAR[™], an internet-based contracting system. The OSCAR[™] system lets farmers identify elevators near their farm that are offering contracts for IP products. Farmers can learn details of the contract by viewing a sample contract.

¹ Personal Communications: Jim Houser and Judy Eilertson, Pioneer Quality Crop Systems.

Producers Alliance, Inc.¹

Producers Alliance was formed in 1999 by a group of Illinois farmers with the help of the Illinois Farm Bureau to help them identify and evaluate value-added ventures. They are headquartered in Bloomington, IL.

Producers Alliance is committed to find opportunities that enhance value and improve profitability of member-producers in the food and fiber value chain through:

- Premium grain contracts
- Specialty crop development
- Further-processing opportunities
- Livestock initiatives
- Agribusiness & processor alliances
- Alternative value-added ventures

Producers Alliance offers producers the chance to shape their future through development of production, marketing, and processing initiatives that capture greater value and strengthen the rural economy.

Producers Alliance worked on coordinating several premium identity preserved (IP) grain contract programs for 2001:

- High Isoflaven Soybeans
- Food Grade non-GM Soybeans
- NutriDense™ Corn

Producers Alliance cooperated with Ag Ventures Alliance of Iowa to bring the Midwest Grain Processors Cooperative proposed to be built near Lakota, IA, to the attention of their members and informational meetings were held in Illinois in early 2001. Other investment opportunities are being researched by the alliance as they are finding it difficult to develop IP opportunities of any significant size to involve their members in.

¹ Producers Alliance website: www.producers-alliance.com

“Producers Alliance Coordinating Premium Identity Preserved Grain Contracts,” *Grainnet*, posted March 19, 2001.

Personal Communication.

Pro-Mar Select Wheat of Idaho, Inc.¹

At the present time, all of the hard white spring wheat being produced in the Pacific Northwest is being grown under contract to Pro-Mar. Pro-Mar is a non-profit, new generation producer cooperative that was incorporated in Idaho in 1996. Pro-Mar uses a single-desk marketing concept and provides price management for member growers who are shareholders in the cooperative. It does both global and domestic marketing and merchandising, and also does specialty niche marketing. The actual marketing is done by MK Commodities, an independent grain merchandising and marketing firm based in Portland, OR. The objective of the Pro-Mar-MK Commodities partnership is to produce and market identity preserved grain crops worldwide.

Pro-Mar has been able to market wheat to flour mills in Utah, and to noodle manufacturing plants in Asia and Latin America. It has served buyers from Ecuador, Mexico, Kuwait, the Philippines, Costa Rica, Dubai, Thailand, and Columbia.

While it has been marketing only hard white spring wheat, Pro-Mar hopes to expand its operation and market all classes of wheat produced in the Pacific Northwest and adjacent regions. It also has access to a flour mill and does mill wheat and sell flour as bulk shipments. The Loan Deficiency payment under government farm program goes to Pro-Mar and then is redistributed to the Pro-Mar shareholders.

Pro-Mar says the returns to growers have been 10 to 40 cents above the price for soft white wheat. The seed cost to growers is \$15.50 to \$16.50 per 100 pounds, and growers are required to plant certified seed. They are not permitted to hold back seed and replant using it. Delivery points for Pro-Mar are located across eastern Washington.

Supported by the Idaho Grain Producers Association (IGPA) 22 grower meetings about acquiring the license to produce and market a new hard white spring wheat variety, Idaho 377S, were held by July of 1996. With more than enough interest to begin a co-op, Pro-Mar Select Wheat of Idaho, Inc. (Pro for producer, Mar for Marketing) was formed. To finance the co-op, 140 farmers put up at least \$200 each for the right to produce the new wheat. The first farmers committed 8,500 acres. There are currently about 260 members, with most of them located in Idaho and Washington.

Pro-Mar has marketing rights to three varieties of hard white wheat. Their product is priced in the hard red wheat market with a generally negotiated premium. They are currently in transition from a pool marketing agreement to production and marketing contracts.

¹ "Alternative Wheats Hard White," *Agricultural Horizons*, Washington State University, last modified December 18, 2000, <http://pnw-ag.wsu.edu/AgHorizons/AlternativeCrops/wheatshw.html> - accessed 07/24/01.

"Farmers join to grow, sell new wheat," *Successful Farming*, February, 1998.

Personal Communication.

Quality Traders, Inc.¹

Quality Traders, Inc., headquartered in Huntley, IL, is an Itochu Corporation (a Japanese trading company) company established in the United States in February 1997 with the goal of identifying end-user specific needs for value-enhanced grain products and ensuring a controlled storage, handling, and distribution of that value all the way down the food chain.

Strengths as described by QTI:

- Presence at every stage along the food chain from seed development to consumer provides stable markets for our growers while delivering consistent quality and quantity to meet the expectations of the discerning consumer.
- Multi-national presence allows information to flow freely in both directions in the food chain.
- Grain-handling manual provides the road map through the handling system of grain legs, conveyors, barges, and ships. Identity-Preserved/Variety Specific A-Z system assures the customer that the grain received will be the grain and only the grain produced by contract producers for end-user needs.
- By maintaining the identity of the grain they claim to have the ability to enhance the value of products throughout our food chain.

Grain Products in the QTI IP System

- High Oil Corn
- High Starch Corn
- Dry Milling Corn
- Nutritionally Enhanced Corn
- Tofu Soybeans
- Natto Soybeans
- Miso Soybeans
- Food Grade Oats
- Dark Northern Spring Wheat
- Hard Red/High Protein Winter Wheat

Primary focus is on non-GMO programs (mostly soybeans) for shipment to Japan.

Itochu designated QTI as its exclusive handler of GM-free soybeans, working through its storage facility in Wisconsin. Consolidated Grain and Barge (CGB) Enterprises, a 50-50 venture between Itochu and the National Federation of Agricultural Cooperative Associations (Zennoh) is working with QTI.

¹ Quality Traders, Inc. website: www.qtraders.com

“Nations respond to biotech concerns,” *AgJournal*, September 7, 1999,
http://www.agjournal.com/story.cfm?story_id=453 - accessed 08/07/01.

Personal Communication.

Rooster.com¹

Cargill, Inc., DuPont and Cenex Harvest States were equal financial partners in launching Rooster.com in May 2000. Rooster.com is intended to be a comprehensive web-based marketplace for local farmer retailers, cooperatives, and manufacturers.

In August 2000 Archer Daniels Midland became a strategic investor in Rooster.com. In November 2000, it was announced that The Andersons, Inc., Bunge Corporation, IMC Global Inc., and Louis Dreyfus Corp. had also joined as strategic investors.

In February 2001, Rooster.com announced that it had agreed to merge **Pradium, Inc.** with its business operations. Pradium was an internet-based cash market for trading grains formed by Archer Daniels Midland Co., Cargill Inc., Cenex Harvest States, and Louis Dreyfus Corp. in late 2000. These companies were already strategic investors in Rooster.com.

The online service is intended to allow producers to market their crops and buy seed, fertilizer, crop protection products, equipment, and other supplies—all through the same business they work with now. Available 24 hours a day, seven days a week, Rooster.com's objective is to provide a one-stop shop connecting producers, dealers, and manufacturers with new marketing opportunities. In-depth market weather information is also available.

No special emphasis on facilitating trade in identity preserved or specialty crops has been identified at the outset.

Rooster.com, an independent business headquartered in Bloomington, MN, ceased operations December 10, 2001, citing an inability to secure additional funding from its investors.

¹ Rooster.com website: www.rooster.com

Wieffering, Eric. "Rooster.com shuts down agricultural Web site," (*Minneapolis*) *Star Tribune*, December 11, 2001.

Southeast Nebraska Area Producers (SNAP) ¹

The Southeast Nebraska Area Producers (SNAP) was formed by a group of farmers in Southeast Nebraska who started meeting monthly in May, 1999. The organization has received support from the University of Nebraska Cooperative Extension Service, Nebraska Rural Development, and USDA Rural Development.

SNAP is an alliance (a non-stock cooperative) of agricultural producers whose stated mission is to increase profits of member farmers by providing assistance in marketing, promoting, and production of quality agricultural products.

How would grains be handled? (from SNAP brochure)

Grain produced by SNAP members will most likely need to be stored in on-farm storage until it is called in to a central shipping point. SNAP field staff will sample each bin for quality and purity following harvest and before delivery. Quantity and quality will be recorded in a computerized database, thus creating a “virtual elevator” made up of the grain stored in individual storage structures on many farms.

The intention is to contract with centralized elevators in the area of grain production for grain handling and shipping. Grain will be called from the “virtual elevator” to meet contract specifications. By pooling production in this way, sufficient volume can be created to improve handling, blending, and shipping efficiencies. End-users benefit by having large quantities of IP grain available at one place at a point in time. The end result will be that SNAP can negotiate for higher prices at the point of sale, on behalf of our members.

Every effort will be made to negotiate contracts that will be attractive to producers throughout SNAP’s geographical area and covering as many different crops and varieties as feasible. Once potential contracts have been negotiated, members will be given the opportunity to sign on as contracted growers.

Initial administrative support is being provided by University of Nebraska Cooperative Extension, Lincoln, NE.

¹ “Southeast Nebraska Area Producers - SNAP, a history and update,” *The NEBLINE*, University of Nebraska Cooperative Extension, Lancaster County, February 2000.

SNAP (Southeast Nebraska Area Producers) brochure.

Personal Communication.

Southwest Ag Producers Alliance ¹

Southwest Ag Producers Alliance was formed in 2000 by a group of 29 producers and businessmen in southwest Kansas, with an administrative office in Hugoton, KS. Their stated goal as producers is to provide a consistent commodity that the end consumer can depend on year in and year out.

Lack of focus, funding and staff support apparently doomed this alliance. Some cooperative activities were entered into between a few of the members but the alliance itself never really got off the ground.

They initially established a website but in August 2001 it had still not been updated. It is no longer available.

¹ Southwest Ag Producers Alliance website: www.swagproducers.com

Personal Communication.

Specialty Grains, Inc.¹

Specialty Grains, organized in 1976, has served many trading companies and processors in Japan, Korea, Mexico, Spain, Italy, Belgium, and other European countries with their requirements for high quality specialty grains. Through contract growing, field/bin inspections, and state-of-the-art processing and shipping methods they strive to achieve the specifications for varietal purity and physical standards which their clients demand.

Processing/warehouse facility at Gibson City, IL, provides the latest in seed and grain processing as well as grain storage technology. The facility is equipped to process soybeans for seed or grain. The warehouse facility at Gibson City, IL, includes temperature and humidity controlled storage. The facility has the capability to load bulk trucks and containers as well as paper or jumbo bulk bags.

Specialty Grains procures specialty corns (yellow waxy, white waxy, high amylose) throughout the grain belt for its clients in overseas markets. Edible soybeans are contract-grown for clients who purchase specific varieties for use as natto, tofu, miso, and boiled soybeans. Fields are inspected during the growing season and the harvesting/farm bin storage process is supervised to assure that quality and varietal purity are maintained.

¹ Specialty Grains, Inc. website: www.specialtygrainsinc.com

Personal Communication.

Specialty Grains LLC ¹

Land O'Lakes, Inc. and Cooperative Business International, Inc. (CBI) announced formation of Specialty Grains LLC in January 2000. The joint venture will integrate seed contracting and the marketing and delivery of specialty grains to overseas customers.

The key to Specialty Grains operations will be an integrated, formalized contract production system. The original focus of the venture is expected to be identity-preserved soybeans and white corn. CBI provides contract production opportunities to growers for delivery to world specialty markets. Contract production is currently available on:

- Identity-Preserved, Variety Specific Soybeans
- White Dent Corn
- Waxy Corn
- Popcorn
- Dry Edibles
- Other Enhanced Trait Crops

Gary Williams, general manager of CBI's International Trade Group, said the new partnership will benefit both organizations. "We are bringing together the cooperative system and Land O'Lakes strength in seed development, distribution and retail sales, with CBI's strength and experience in international marketing, market development and the delivery of specialty grains to customers at home and abroad. That combination will help us build a competitive edge."

CBI is a closely held corporation whose shareholders represent U.S. agricultural, financial, and insurance interests. Major stockholders in CBI include:

- Ag Processing, Inc.
- Land O'Lakes, Inc.
- National Cooperative Bank
- National Cooperative Business Association, Inc.
- Nationwide Insurance Enterprise, Inc.
- The Federation of Southern Cooperatives, Inc.
- The Ohio Farm Bureau Federation, Inc.

CBI has its headquarters in Columbus OH, with additional offices in Washington, DC, Russia, Hungary, and Indonesia.

¹ "Move toward contract seed production," *AgJournal*, January 27, 2000, <http://www.agjournal.com>, - accessed 07/25/01.

News Release, January 26, 2000, CBI, "Land O'Lakes and Cooperative Business International for Specialty Grains Venture," <http://www.cbi-global/newsrelease.htm> - accessed 07/25/01.

Personal Communication.

Spring Wheat Bakers ¹

United Spring Wheat Bakers was formed in 1997 by 3,000 spring wheat growers in the four-state region of North and South Dakota, Montana, and Minnesota. The producers wanted to find a way to add value to their spring wheat. In June 1999 they changed their name to Spring Wheat Bakers, when they opened a frozen dough and par-baked bread products plant in McDonough, GA (near Atlanta).

In addition to sourcing grain for its own operations Spring Wheat Bakers Grain Operations Division was established to offer an Identity Preserved ingredient delivery system for other customers. “From the selection of the seed to the planting and agronomic practices employed in the production of the crop to storage, segregation and delivery of the product to you, Spring Wheat Bakers offers you an ingredient procurement program that will meet the demanding needs of your customers.”

SWB was shipping “IP” wheat from its members in unit trains for other customers until ceasing grain merchandising operations in July 2001. “The marketplace was just not willing to pay enough of a premium, yet, to continue with the (grain merchandising) business,” said Mike Warner, chairman of the board.

¹ Spring Wheat Bakers website: www.swbakers.com

Pates, Mikkell. “Spring Wheat Bakers names new president.” *AgWeek*, October 1, 2001.

Personal Communication.

SunRich Inc.¹

Sunrich sources and markets Identity Preserved (IP) specialty grain and natural, certified organic food ingredients to domestic and foreign food processors. Products include: IP corn, food grade soybeans, soymilk, soymilk powders, grain (corn, rice, and oats), sweeteners and maltodextrins, organic vegetable oils, organic corn, soy and oat flours, and organic feed ingredients.

Sunrich was founded in 1978 with over 300 grower-members. It was acquired by Stake Technologies, LTD, Noval, Ontario, Canada, in 1999, and operates as a wholly-owned subsidiary. Sunrich is headquartered in Hope, MN. The Sunrich Food Group has processing affiliates in Hope, Alexandria, and Bertha, MN, Cresco, IA, and Afton, WY.

Sunrich ensures that it provides its customers with the highest quality identity preserved specialty grains, by serving as a grower's supplier of seed, purchaser of grower's identity preserved specialty crops and distributor of identity preserved specialty crops.

Identity Preserved and Organic grains are primarily sourced from over 1,000 North American growers and suppliers via annual production contracts and occasional spot market purchases.

Sunrich's IP Grain Program monitors and directs the various stages of the IP process:

- seed selection and grain production
- grower services (agronomy products and services and field services)
- transportation and storage
- processing, packaging and delivery
- testing and verification

Sunrich also owns and operates processing facilities including seed and grain conditioning operations, food ingredient manufacturing sites, and custom processing (from bag orders to bulk barge shipments).

¹ SunRich website: www.sunrich.com

Stake Technology Ltd, SEC Form 10-KSB, for the fiscal year ended December 31, 2000. Securities and Exchange Commission, Washington, DC, filed April 13, 2001.

Topflight Grain Cooperative ¹

Topflight Grain Cooperative, Inc. is a farmer-owned grain cooperative in Illinois. Formed in 1998 as the consolidation of three local cooperatives, Topflight Grain is located in east central Illinois, serving producers in Piatt, Macon, Moultrie, Douglas, and Champaign counties. The main office is located at the Bement, IL facility.

Permanent storage capacity of their 18 facilities is 18.1 million bushels. Annual volume of the company is 22 million bushels, with sales exceeding \$100 million.

In 2001 the Topflight Specialty Grain Program included high oil corn and nonGMO soybeans:

- The nonGMO soybeans earn a 20 cent premium, delivered to the Atwood, Bement, Burrowsville, Cisco, Emery, Seymour, and Shackelfords facilities. They can also be farm stored, delivered at buyer's call.
- The high oil corn premium is 20 cents, based on an 8% oil content. This corn must be delivered by to Bement or Cisco, or stored on the farm and delivered at buyer's call. The corn price is determined by the export market, which varies (higher and lower) than the domestic market.

Buyer's call means that the farm stored grain will be delivered when the processor calls for it.

¹ Topflight Grain Cooperative website: www.topflightgrain.com

Personal Communication.

Value Enhanced Grains (VEG)¹

Value Enhanced Grains (VEG) Solutions offers objective information to buyers and processors of grain who are interested in efficiency gains and improved profitability via a comprehensive website on the Internet.

Included on the website is the **VEG Virtual Trade Show** which includes an on-line supplier database which allows for company profiles and other important information. There is also a buyer-side registration feature which allows for feedback for the industry on products/characteristics of interest and other important information to help suppliers better understand the buyer's needs.

The **2000/2001 Value Enhanced Grains Quality Report** is also available on-line. Included on the VEG site are **corn** and **grain sorghum** types with particular quality characteristics that add end-user value.

The Value Enhanced Grains website which offers presentation options in English, Spanish, Japanese, and Chinese is sponsored by the U.S. Grains Council.

¹ Value Enhanced Grains website: www.vegrains.org

“U.S. Grains Council Creates Value-Enhanced Grain Website,” *Grainnet*, Posted May 4, 2001.
<http://www.grainnet.com/info/articles.html?type=ar&ID=10496> - accessed 11/21/01.

VantagePoint Network, LLC ¹

The VantagePoint Network™ is a website providing low cost information and management systems to the agricultural community. Current system tools include:

- ◆ Crop Management System: Maintain your crop's identity from the seed to the sale. Keep track of all planting, fertilizing, tillage, crop protection, and harvest activities on the field level.
- ◆ Farm Management Reports: Document seed and chemical use. Generate profitability, costs per acre or per bushel, and break-even analysis.
- ◆ Grain Storage and Sales Tracking System: Track grain inventories from field level crop records and trace them through to storage units and scale tickets.

VantagePoint Network, LLC, formed in 1999 by Deere & Company, Farmland Industries, and GROWMARK, Inc. is based in Fort Collins, CO. In October 2001, John Deere announced that it had reached an agreement to assume full ownership of the VantagePoint Network™.

Deere & Company announced on December 7, 2001 that it had made the decision to decommission the VantagePoint Network™. The announcement stated that all VantagePoint Member account data would be deleted as of February 1, 2002, and would no longer be available.

¹ VantagePoint Network website: www.vantagepoint.com

John Deere Announcement: October 4, 2001, <http://www.vantagepoint.com> - accessed 12/01/01.

John Deere Announcement: December 7, 2001, <http://www.vantagepoint.com> - accessed 01/30/02.

21st Century Grain Merchandising ¹

21st Century Grain Merchandising, LLC was formed in June 2000 to deliver Identity Preserved grain from farmers to their customers. Members of the LLC are 21st Century Grain Processing Cooperative, 21st Century Alliance, and Advanced Market Concepts (a consulting service to agricultural producers, based in Manhattan, KS).

The company is working with the specific goal of linking their customers to their direct farm IP supply source to create value for everyone involved, while ensuring a safe food supply.

The 21st Century Grain Processing Cooperative became a reality in June 1997, when 375 wheat farmers in Kansas raised \$3.2 million and purchased a flour mill in Rincon, NM. Following renovation the facility is operating as New Mexi-Kan Milling Company, serving the growing wholesale tortilla and bread manufacturing markets in the southwestern United States. In July 2001, 21st Century Grain Processing Cooperative acquired the Farmers Elevator of Dawn, TX, and its subsidiaries, Panhandle Milling and Panhandle Corn Products to give their farmer-members access to additional value-added markets for their identity preserved wheat and corn.

21st Century Grain Merchandising, 21st Century Grain Processing Cooperative, and 21st Century Alliance are all headquartered in Manhattan, KS.

¹ 21st Century Alliance website: www.21stcenturyalliance.com

“21st Century Grain acquires Panhandle Milling operation,” *Milling & Baking News*, July 24, 2001.

Personal Communication.